

# BHARATI VIDYAPEETH DEEMED UNIVERSITY, PUNE (INDIA)

#### **SELF-STUDY REPORT - 2016**

(3rd CYCLE)

**VOLUME** – III

(Additional Information for Health Science Institutes as per NAAC Manual for Health Sciences)

SUBMITTED TO

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)

BENGALURU

# **VOLUME – III**

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# CRITERION-WISE INPUTS

## Criterion – I Curricular Aspects

#### CRITERION - I: CURRICULAR ASPECTS

#### 1.1 Curriculum Planning, Design and Development

## 1.1.1 Does the institution have clearly stated goals and objectives for its educational program?

Yes, the goals and objectives of the health science institutions are clearly outlined which are as stated below.

#### GOAL:

To create competent, compassionate and confident professionals who will be accountable and will be true to the noble deeds thereby ensuring the good health and longevity of mankind.

#### **OBJECTIVES**:

- To enrich the heritage of knowledge in health sciences by active and fulfilling research.
- To inculcate life-long learning skills, scientific temper, social responsibility and ethical principles of healthcare systems.
- To create and maintain optimum infrastructure for providing quality education to students and patients for health care and for research in related fields as required by the dynamically changing and diverse needs of the society.
- To create and inculcate humanitarian values in students.

## 1.1.4 How does the curriculum design and development meet the following requirements?

- Community Needs
- Professional skills and competencies

#### • Community Needs:

Various aspects of community needs are addressed while designing and developing curricula of health science subjects. Involvement of staff and students in activities like health camps, NSS, public and community awareness lectures, school health checkup, blood donation camps, health awareness programmes, etc. serve to create and develop a spirit of community attachment and responsibilities.

The recent trends in the community with regard to health issues are incorporated in the curriculum e.g. H1N1, vaccination schedule, holistic approach to diseases etc.

The college of Ayurveda makes efforts through the age old time tested modalities like GarbhaSanskar Unit, Suvarna-Prashan Unit, Dhoopan Chikitsa, Pathyapathya and specifically designed herbal formulations etc.

The curriculum planning in health sciences also focuses on training the Medical graduates in the basic clinical skills needed to work at primary health care level along with sensitization towards the needs of the community.

#### • Professional Skills and Competencies:

The curriculum of health science institutes accomplishes professional skills and competencies at three levels, namely, Academic, Clinical and Industry requirements.

#### Academic:

Field visits impart grass root level hands on training to students. Seminars, webinars, workshops and training programs help the students acquire various professional skills. Incorporation of PBL, OSCE and microteaching sessions in the teaching process to make the students academically competent. Interaction with leading practitioners is enabled during guest lectures and in consultancy sessions in the OPDs. Clinical:

Adequate clinical exposure is provided to UG and PG students in the form of patient interaction, bedside clinics, hands on experience in OPD & IPD, homoeopathic treatment to the doorstep of the patients in surrounding rural areas of Pune, health camps in rural areas to orient the students regarding health issues at the rural level. Department of Gynecology helps to develop PG student's skill by organizing Pap smear camp and laparoscopy training. Ayurveda procedures like Panchkarma, Agnikarma, Raktamokshan, Ksharsutra, Ksharkarma, etc and other specialized skills are taught to the students. Programmes like BLS and ALS have been introduced in the Medical college.

#### Industry:

Ayurveda pharmacy training programmes are periodically arranged to get insights in the industry requirements, latest manufacturing techniques and innovative methods. Guest lectures are arranged for PG students to famirialise them with the working of the pharmaceutical industry.

## 1.1.7 How are the global trends in health science education reflected in the curriculum?

The health science institutes train the students in the use of modern ICT tools to enable them to provide better professional services. The health science colleges plan various professional developmental programmes for the faculty

and students. Well known professional are invited to share their knowledge and experience with the students.

Study Material is uploaded on the university portal so that the students can access, download them and refer the material whenever required.

A digital library has been developed and computer and internet access is provided at free of cost to staff and students ito access the content. High fidelity 3G Simulation man for teaching and training and mannequin to enhance skills are adapted.

Well known academicians and practitioners are appointed as mentors in some departments.

Evidence based medicine, a global trend in health education is incorporated in the syllabus.

Through visits by experts, communication technology and WHO site the latest trends in global health science are imparted to the students. There is a separate theory paper on recent advances at post graduate level.

Students are provided access to medical literature in various forms to help them understand the global health trends.

Ayurveda curriculum imparts Yoga and Naturopathy knowledge also that deal with current lifestyle disorders and occupational hazards.

#### 1.1.10 Explain the initiatives of the institution in the following areas:

- Behaviour and Social Science
- Medical Ethics/ Bio Ethics/ Nursing Ethics
- Practice Management towards curriculum and/or Services
- Orientation to research
- Rehabilitation
- Ancient scriptural practices
- Medico legal issues
- Enhancement of quality of services and consumer satisfaction

#### Behavioural and Social Science -

During the address of the Principal to first year students, emphasis is laid on the moral and disciplinary aspects of the institute. Simultaneous introduction of the Teacher –Ward System to the freshers provides further guidance. The student Support Cell arranges special lectures focusing on techniques of mind-control, concentration, and self-confidence for UG and PG students which

help them to change their behavior in positive manner and to build their confidence to deal with personal and social problems if any. Yoga and Stress management programs are regularly conducted.

Medical college has started an orientation programme for freshers in which interaction with senior students is also organized to make them aware about the challenges. Communication with each other helps them to get orientation of different cultures and enhances understanding with one- another. Under NSS schemes, various outreach programmes such as plantation, literacy campaigns, blood donation camps, motivational camps, AIDS and Tuberculosis awareness etc. are undertaken by the institutes. Hospitals arrange periodical health camps for various social strata. These activities enrich students' social relationship.

Anti-ragging committee, grievance redressal committee, anti-sexual harassment committee and students counseling cell function to achieve harmony. Students are exposed to ethics in medicine during their orientation program at the beginning. Orientation program for PG students is also conducted.

In Homeopathy College, deaddiction centre for tobacco and alcohol is being run by the institute at Bharatinagar OPD. A project with mentally challenged children at Dilasa School is being carried out.

Community Medicine and public health are addressed in the curriculum of the health sciences. The training provided brings about positive behavioral changes amongst students. The students are trained for effective communication with the patients, families and team members through lectures, discussions, role plays, practice sessions on patient teaching and supervised clinical practice. Students are taught behavioral and social science and its relationship with the health, illness and nursing as a part of their curriculum. Fundamentals of nursing include topics like communication, spiritual nursing, and health seeking behavior.

#### • Medical Ethics / Bio Ethics / Nursing Ethics –

Medical ethics is a part and parcel of Medical education. The subject of Forensic Medicine deals with ethics. It is taught to all health science students during second year. The students are made aware about various codes, rules and regulations governing Medical practice.

The importance of moral values and observance of Sadvritta [Good conducts] and ideal code of conduct of a physician is taught and inculcated from the basics, keeping in mind the teachings of

Acharya Charak:

naihjaIivatadanaata\ ihdanama\ Anyata\ ivaiSaYyatao | tasmaata\ {paacarota\ svaonasvaonainasvatapaisvana:||

(There is no endowment like bestowing life. Hence, on his own debts, a physician should treat a poor or deprived patient who is dedicated to an ethical superior quality work.)

Every institute has an institutional ethics committee. It is mandatory to seek clearance from ethics committee for clinical trials and experimental research.

Malpractices of all sorts are prevented, avoiding carrying out unnecessary investigations or compromising the confidentiality of the patients is strictly avoided. Distancing away from all unethical procedures and practices is followed routinely.

Nursing care is promoted as per the nursing ethics in the hospital.

#### • Practice Management towards curriculum and/or services-

There is a well-defined academic calendar of each of the health institutes which is prepared at the beginning of an academic year which includes teaching and examination schedule and is followed strictly. Structured program for PG teaching is followed by all the departments.

#### • Orientation to research-

In the revised structure of the UG course, the subject 'Research methodology and biomedical statistics' is included which makes student aware regarding the importance of research. Students are encouraged to participate in research activities and to take up ICMR projects.

In Homeopathy College, undertaking research project is mandatory for each intern.

For PG/ Ph D students research projects are mandatory as a part of their curriculum which gives practical orientation to research. PG students attend Research Methodology and manuscript writing workshops in Medical College. Annual Research Society conferences provide a platform for presenting their research.

Faculty members are encouraged to undertake Doctoral studies and are motivated to publish their research in journals with high impact factor. They are totally engaged in research works individually. BVDU provides seed money to encourage faculty to perform research.

All the health science institutes have ethics committee, scientific advisory committee and departmental research committee to guide the students.

The colleges strive to inculcate a scientific temper in the students e.g. giving a scientific rationale, using evidence based practice, including latest books and journals for preparing teaching plans and presentations.

#### • Rehabilitation-

The institutes believe in an integrated approach towards patient care not just in terms of patient treatment but also rehabilitation of patients.

For physical rehabilitation –Physiotherapy and ICTC centre for HIV and TB patients are established.

Yoga adds to the rehabilitation aids on a physical and mental level.

The Psychiatry department of the Medical College takes care of the mentally ill ones. The department is in a different building with separate security. In addition to treatment, it conducts counseling sessions for patients and relatives.

The department of Pediatrics in Bharati Hospital has a Child Development & Guidance Clinic. The CDGC does evaluation, diagnosis, management and rehabilitation of neurodevelopment disorders, psychological and educational problem in children. It consists of a team of developmental pediatrician, child psychiatrists, psychologists, physiotherapists and occupational therapist, speech and language pathologists.

The Tobacco Intervention Initiative Centre is located in the department of Oral Medicine of the Dental College to help in the counselling & rehabilitation of patients with tissue abuse habits.

Students are taught about the concept of rehabilitation at all levels of the nursing course. Also, the students are encouraged to involve themselves in the care of chronically ill patients and apply the knowledge of rehabilitation into practice. Regular visits to deaf and dumb institution, geriatric homes, Cipla foundation for palliative care and scheduled community postings are arranged to enhance the rehabilitative knowledge of the students.

#### Ancient scriptural practices-

Ayurveda is Upaveda of Atharva Veda and an ancient scriptural Medical practice. The College of Ayurved was started with view to preserve and promote Ayurveda – the Ancient Indian Medical Science.

Ancient scriptural practices like 'Ideal code of Conduct' (described under the topic, of Sadvritta and AacharRasayan), observance of daily and seasonal regimens (Dinchrya and Rutucharya), concept of beneficial and harmful food as per Prakriti and disease, understanding the Mind as a site of diseases as well as a tool of knowledge, Naishthikichikitsa (guidance for Self Realization) are a few glimpses of this Science; which makes it a unique one. Maintenance of health, knowledge of diseases and treatment are three facets of any health care system, especially Ayurveda. At each of this level, the students are motivated to learn the concepts of Ayurveda from ancient scriptures with applied aspects. The students are encouraged to visit the archives in places like Bhandarkar Oriental Research institute.

'Sound mind in sound body' which is the theme of WHO is brought in to practice by having facilities for yoga, naturopathy and counselling cell for the students.

#### • Health Economics-

The hospitals provide treatment at concessional rate to the needy patients and patients under BPL. Thus, Health Economics is observed in many ways.

Patients are treated at subsidized charges in Dental college, and the patients of low socio-economic status are even treated free of cost. Extractions, complete denture, oral prophylaxis, removable orthodontics are done free of cost. There is a health scheme for all students and faculty of the institute.

Health care services are provided to the students, teachers and non-teaching staff free of cost or at concessional rates

Patients also are treated free or at concessional rates i.e. Haemodialysis services, ICU, HDU etc.

Students are taught health economics in their curriculum in nursing college.

The institutes conduct an audit every two to three years to make modifications in the management and treatment to meet the health challenges.

Economics in healthcare and its burden on common man and the government as an important issue are covered during different clinical and community medicine teaching programmes. The students are made aware of their role as health care imparters and the financial benefits thereof.

#### Medico legal issues -

Medico legal aspect is a mandatory issue that needs to be addressed by all the health science institutes.

Department of Forensic Medicine deals with the medico-legal issues. The syllabus includes all the important medico-legal topics, laws and recent court judgments.

Training is given to students on medico-legal issues complemented by field visits to criminal courts.

A legal officer has been appointed to deal with all medico –legal issues. Rules and regulations regarding medico-legal aspects are prominently displayed. Records of legal documents are kept. A separate 'medico- legal- case- register' is maintained for such cases. Proper norms are followed for the same.

In the Medical College, a medico legal cell is established in 2007 which guides the hospital staff related to medico-legal issues. Special lectures are organised for interns and residents to make them aware about medico-legal aspects of patient care.

Antibiotic audit, Death audit, surgery audits, tumor audit, Caesarean audit are conducted regularly. Ethical committees monitor the research related activities.

Legal aspects related to nursing is taught and the student is supervised to handle medico legal cases in practice e.g. accidents, burns etc.

#### • Enhancement of quality of services and consumer satisfaction-

Visits by regulatory bodies, feedback by patients help the institutes to maintain quality in the services offered.

IQAC monitors the functioning of various committees in the institutes for efficient and effective functioning.

Local management committee conducts regular meetings to enhance the quality of care.

Practices like clinical audit, death audit and visits by experts help to increase the quality of services.

Empanelment with various industries, insurance companies also have helped to improve the quality of services.

Accreditation by NABH and NABL are in process which is also a step in the enhancement of quality.

## 1.1.11 How does the institution ensure that evidence based medicine and clinical practice guidelines are adapted to guide patient care whereever possible?

Health sciences institutes periodically arrange conferences, workshops and CMEs for updating the knowledge in evidence based medicine and clinical practice guidelines.

Field visits organized by different institutes also provide support in this direction. The institute aims to provide treatment with maximum benefit and minimal risks.

For this institutes have established pharmacovigilance cell which runs actively tat acceptable costs. Discussion about the patient care management and investigation reports among the senior and junior faculty takes place at the time of grand rounds. Group discussions, departmental seminars and Journal clubs help to keep the faculty updated regarding recent trends in patient care management. Institutes also have a fixed Antibiotic policy which is followed meticulously by which infection control practices are laid down.

Integrative diagnostic & curative methods are adopted for precise diagnosis & treatment in Ayurveda hospital. Clinical practices are done as per the guidelines of Ayurveda classics, FOGSI, WHO, and other standard guidelines. Preferred practice guidelines are followed for various procedures for routine and emergency care for maintaining safety and quality.

Clinical Practice Guidelines (CPGs) are evidence-based documents that facilitate the application of current evidence into everyday emergency nursing practice.

## 1.1.12 What are the newly introduced value added programmes and how are they related to the internship programmes?

Sensitization of the interns about dealing with female patients, MTP, contraception and maternal mortality issues through IPAS is done. DOTS sensitization program in association with the state government is regularly conducted. Interns' skills assessment form is designed by the Obstetrics & Gynaecology department of the Medical College to document and ensure the training of all in the essential clinical skills. An annual workshop on hospital based corneal retrieval is being conducted by the Medical college for interns since 2012 by Ophthalmology department. Regular one day skills programme in BLS and ALS is being conducted by the Medical College.

- 1.1.13 How does the institution contribute to the development of integrated learning methods and Integrated Health Care Management?
  - Vertical and horizontal integration of subjects taught
  - Integration of subjects taught with their clinical application
  - Integration of different systems of health care (Ayurved, Yoga, Unanni, Homeopathy, etc.) in the teaching hospital.

#### • Vertical and horizontal integration of subjects taught:

In **Ayurveda College**, all departments plan and conduct micro-teaching, group discussions, Pre- MD seminars on regular basis. Faculty of other departments remain present for Pre-MD seminars and discussions as per their subject of interest and freely give opinions about the topics. There is a facility for live 'on screen demonstration' of certain surgical procedures. Apart from such inter-departmental activities, the institute carries out various health related programmes jointly with colleges of other Medical sciences and IRSHA.

In **Dental College** Interactive instructional techniques such as focused group discussions, debates, projects, presentations (paper/poster), experiments, workshops and application of ICT resources are used for students for critical thinking and technical up gradation.

In **Medical College** postgraduate students from Surgery and Orthopedics are posted to Anatomy and Physiology (Basic sciences) at the beginning of the course. PG students of Pharmacology are posted in Clinical subjects and pharma industry. PG students of Biochemistry are posted with Microbiology and Pathology to learn the principles and applications of their routine laboratory tests. They are also posted in the Medicine department. Department of Anatomy conducts lectures for Fellowship students of Paediatrics. Interdepartmental PG activities are undertaken e.g. Pharmacology and Paediatrics Nephrology, Pharmacology and Microbiology- on the topics of mechanism of actions of Anti- microbial agents. Interdisciplinary sessions - involving all relevant departments of College — on Breast cancer, Diabetes, Arrhythmias, Post graduate students attend death audits which involves discussions with experts from other fields of medicine.

At UG level there is usually horizontal integration e.g. anatomy and physiology teach the same system. UG student seminars are organized where in a topic is chosen and different students talk on various aspects from anatomy to physiology to treatment of diseases or autopsy findings.

**Nursing syllabus** and curriculum is planned in the same way by keeping in mind the vertical and horizontal integration of subjects. In vertical integration, subjects like Medical Surgical Nursing, Community Health Nursing and

Obstetrics &Gynaecology Nursing are incorporated in the syllabus. Basics of these subjects are taught in first and second year of the Nursing course and application of these subjects along with advanced knowledge in third and fourth year of nursing course. Specializations in the area are taught in Masters Programme of Nursing. Under horizontal integration of subjects, along with the subjects of nursing, psychology, sociology, environmental science, education, administration & management and research are taught in order to make the students more competent for providing comprehensive nursing care.

#### • Integration of subjects taught with their clinical application:

All subjects including those from the pre-clinical and Para clinical are taught focusing on their clinical application. At hospitals, all departmental staff work as a team and cross referencing is made before final diagnosis and treatment. In the Dental college, every month, various department faculty and the students conduct interdisciplinary meetings to discuss case studies that require multiple departmental diagnostic and treatment modalities. Eminent specialists of different streams come to OPD and IPD and share their clinical experiences with students.

The inter-departmental clinico-pathological meetings of the Medical college, seminars and case discussions have improved the clinical applications, e.g. lectures on 'basic skills in ophthalmoscopy' are conducted by radiologist's workshop, allied postings for PG students of other departments.

Department of Pharmacology arranges lectures in college of Ayurved on general concepts of use of modern drugs and in Homeopathic College on actions, use and ADRs of modern medicines.

## • Integration of different systems of health care (Ayurveda, Yoga, Unani, Homeopathy, etc.) in the teaching hospital:

Integration with Yoga and Naturopathy and modern medicine is adopted in the health care at Ayurveda hospital. Yoga and Massage OPD is run in Homoeopathic Hospital.

# 1.1.14 How is compatibility of programs with goals and objectives achieved with particular reference to priority of interface between Public Health, Medical Practice and Medical Edication?

The health institutes aim to develop good professionals and serve the mankind with better and better health caring approaches. Patients from all strata of the society come to the hospitals of the University including from lower socioeconomic strata. Same services are provided to all. Students are given ample experience in the diagnostic and therapeutic methods. Periodical health camps are held by the hospital in different areas of the city and outside. The needy

patients get treatment at concessional rates. Compatibility of the programs is assessed with the help of feedback from the students and patients.

Ayurveda teaching focuses on 'in-depth Ayurveda knowledge'. At the same time recent trends in health care are also duly acknowledged. Recently Ayurveda College has adopted five other villages nearby Pune to offer health care. Mobile clinics in rural areas in 14 villages are run by PG students of Homeopathy College.

#### 1.2 Academic Flexibility

## 1.2.8 What programs are offered for practicing health professionals for skills training and career advancement?

CMEs for the practicing health professionals are organized which are based on current trends, challenges and advances in health issues with medico-legal aspects. The institute organizes ROTP, workshops, CMEs for faculty.

Training and awareness programs are organized for nurses in Newborn care, Pharmaco-vigilance.

For skill enhancement training of the practicing health professionals various workshops like Temporal Bone Dissection, Spine Surgery and FESS workshops are conducted.

Training in safe delivery practices for Government Medical Officers through 'Reaching the Roots' and Temporal Bone program for various government ENT doctors for implementation of Health programmes under NPPCD program are conducted.

Regular CME programme for Family Physicians are organised.

In the nursing college, in-service education programme IMNCI Training programme, NRP training, Obs. /Gyn. Skill stations, Pediatric Skill Stations, GFATM Training Programme and BLS Training Programme are conducted.

#### 1.3 Curriculum Enrichment

# 1.3.6 How does the institution incorporate the aspects of overall personality development addressing physical, mental, emotional and spiritual well being of the student?

**Physical** – Students are encouraged to participate in sports. Facilities for football; throw ball; cricket etc. are available in the campus along with gymnasium. Sports weeks are organized every year. Physical health check-ups are conducted for 1<sup>st</sup>year students. Medical facilities at concessional rate are available in all the hospitals of the University.

Mental, Emotional and Spiritual wellbeing of students —Good conduct and good behavioral practice is a part of the curricula which reflects in mind building of the students. Students participate in various extracurricular activities like cultural programmes to refresh their minds. The student support cell and teacher ward system help to maintain the emotional equilibrium of students in very friendly and careful manner. Grievance redress cell also resolves the issues of disputes among students. Counselors are made available as per need of students. Students express themselves through wall magazines and various co-curricular & cultural activities.

Orientation programs play important role in smooth transition.

Yogic procedures are practically taught to students of Ayurveda which build philosophical and spiritual platform for students.

Counseling committees help the NRI and foreign students in sorting out all their problems.

## 1.3.7 Does the curriculum provide for adequate emphasis on patient safety, confidentiality, rights and education?

Yes, the curriculum provides adequate emphasis on patient safety, confidentiality, rights and education.

Through various seminars, lectures and CMEs, students get knowledge regarding patient's safety measures, confidentiality, rights and responsibility. The post graduate students who undertake the research are subjected to present their research proposal in front of Scientific Advisory Committee and Institutional Ethics Committee. Research project protocols are designed as per ICMR / WHO guidelines.

Patients are counseled and made aware of the possible adverse effects. Thus safety precautions are followed carefully to avoid health hazards.

All research projects are carried out after written consent of patients. The information of patients is kept confidential. Patients have full right to ask any questions regarding treatment and charges which are answered by appropriate authority.

Hospital premises are adorned with various informative charts related to health care. A continuous LCD display narrates specialties of Ayurveda. Institutional Pharmacovigilance cell takes care of ADR if any.

Training of students with relation to Informed consent writing, prescription writing, history taking, case paper documentation are conducted at Medical College and students of other health sciences attend the same. Lab accreditation & Blood bank accreditation is done regularly for patients' safety.

#### 1.3.8 Does the curriculum cover additional value systems?

#### Moral and ethical values:

To inculcate social responsibilities among students well organized NSS activities like tree plantations, Dental checkup camps blood donation camps, street plays etc are organized. World health day, Anti-tobacco day, Oral hygiene day and Anti AIDS day are observed. Charts & posters are displayed and camps are conducted at various places in and outside the campus. All these activities help to develop moral and ethical values.

National days, constitution day, swach bharat abhiyan and many other days are celebrated by individual departments inculcate value based learning among students.

Various codes of conduct, rules and regulations are displayed at various places in the college premises.

Each and every chapter of **Ayurveda** scripture starts by offering prayer to GOD. So, every day, in each class, the first lecture starts with Dhanvantari Prayer. Ayurveda science itself is founded on body –mind-soul relationship and the treatment is described accordingly. Meditation technique is taught in routine Yoga practical for UG and DNYS students.

#### **Community orientation:**

As a socially conscientious university, we expect our students not only to develop their scholarly careers, but also to have a sense of social commitment through the socially relevant activities such as health camps, street plays, rallies in urban and rural areas, field visits, NSS camps, adoption of villages, clinical postings at rural centers etc.

#### 1.4 Feedback System

1.4.5 What mechanisms are adopted by the management of the institution to obtain adequate information and feedback from faculty, students, patients, parents, industry, hospitals, general public, employers, alumni and interns, etc. and review the activities of the institution?

**Students**: The institution has a formal and informal mechanism to obtain feedback from students. Both UG and PG students give feedback. Suggestion box is also available for students. Nursing College uses the structured questionnaire suggested by NAAC and also takes online feedback ton a rating scale prepared by BVDU.

**Patients**: Suggestion box and visitor's remark register are kept in the hospital for patients' opinions. Patients give their opinions during formal and informal talk with physicians, RMO, Medical Social workers, Superintendent, deputy superintendent and Medical director.

In Nursing College verbal feedback is taken from the patients while providing care to the patients and it is documented in the nurse's notes.

**Parents**: Parents' meetings are regularly held by the institutes for all academic years of UG and PG courses. Additionally parents share their views with the concerned teacher allotted as per Teacher-Ward-System, with HODs, Academic in-charge and Vice Principal and Principal.

**Alumni:** Alumni provide feedback during their meets, via e-mails and also informally.

**Faculty:** Faculty gives opinions during meetings which are held regularly. Suggestion box is also available for faculty. The faculty, in person can meet the authorities.

Academic peers, experts and practitioners: These stakeholders give their suggestions routinely during their visits to college & hospital, during conferences and when they are invited for guest lectures, examinations, Pre-MD Seminars, Ph.D. presentations, BOS meetings etc.

In Dental College, the Core Committee calls upon outside experts, practicing Dental surgeons and experts from other Dental colleges for discussions of the collected feedbacks from Academic peers.

*General public*: Patients' relatives share their views in day to day OPD & health camps. Routine interactions of faculty, staff and students with people around the institute provide a feedback. Thus indirectly the inputs from the community are toollected and considered while designing the curriculum.

*Industry:* Industry personnel give inputs during visits to pharmaceutical industries and in meetings conducted for research projects in collaboration with them.

*Interns:* The faculty regularly interacts with interns and obtains their feedback.

*Employers:* Employers visit college and hospital and interact with faculty and staff members and convey their feelings regarding the functioning of the institute.

In Nursing College, employer's feedback is taken through official correspondence by sending them the rating scale.

# Criterion – II Teaching Learning & Evaluation

#### CRITERION - II: TEACHING-LEARNING AND EVALUATION

#### 2.2 Catering to Student Diversity:

### 2.2.6 Is there a provision to teach the local language to students from other states/countries?

The language of instruction for all the courses offered by the institutions is English and Hindi. However, a basic knowledge of the local language i.e. Marathi is essential to converse with patients in the hospital duties.

Students from other states learn this language, slowly but surely with the aid of faculty and their local fellow students. Remedial courses in Marathi are taken up for students from other states. Foreign student's cell helps concerned students to learn local language.

## 2.2.7 What are the institution's efforts to teach the students moral and ethical values and their citizenship roles?

Our institutional mission and vision highlights the quality care to society, which enhance the social sensitivity. The values, altruism and autonomy will enhance the moral value of the students

The curriculum is developed in such a way that it imparts extensive training to the students that inculcates life-long learning skills, scientific temper, social responsibilities and ethical principles in them. Thus the career oriented training achieved through curriculum helps for character building and overall personality development of an individual who in turn, being an able citizen of the nation, contributes to the national development.

Active participation in the health camps, rural and urban community postings, cultural events and the festivals of various states, Lectures on professional ethics and Indian constitution/NSS activities gives opportunity to learn the real situation of community.

# 2.2.8 Describe details of orientation/ foundation courses which sensitize students to national integration, Constitution of India, art and culture, empathy, women's empowerment, etc.

National Social Services conducts various camps/programmes to sensitize the students towards national integration.

**Dental College** NSS unit organizes rural Dental check-ups and oral health awareness camps, blood donation camps, free plantation. Also various days of social relevance and national importance are celebrated in the college to make

#### Criterion – II: Teaching-Learning and Evaluation

the students aware of them. World Tobacco Day(31<sup>st</sup> May), Doctors' Day (July), Oral Hygiene Day (01<sup>st</sup> August), Teachers' Day (05<sup>th</sup> September), NSS Day (24h September) Children's Day (14<sup>th</sup> November) and ANTI AIDS Day (01<sup>st</sup> December) are celebrated by displaying charts and posters.

**Ayurveda College** conducts a week-long National Social Services camp annually for UG students of the 2<sup>nd</sup> professional year. Cleanliness drives, health camps, social awareness lectures e.g. HIV awareness, yoga etc are conducted therein.

National days like the independence and republic days are respectfully celebrated.

Students from all over the nation belonging to varied cultures, religion, castes and creed live and learn in harmony proving a unity in diversity.

In **Medical College**, Cultural (Elixir, Bharati youth festival, Mirage) & Sports week are held annually to provide a channel to the students to show case their talents. This inculcates in them a sense of belonging which in turn helps them to adjust better and faster in their new environment.

In addition various days are celebrated in Hospital like World ORS Week, World Breastfeeding Week, Teen Age Day, World Epilepsy Day, World Kidney Day & Week, World Health Day, World Asthma Day, Nutrition Week, World Tuberculosis Day etc.

Women's' welfare cell works for the welfare of the ladies students and faculties of the institution and makes an attempt to provide a healthy and a safe atmosphere conducive for work.

Constitution Day, also known as Samvidhan Divas, is celebrated in the institute in honor of Dr. B. R. Ambedkar who is known as the architect of the Indian constitution. Programs are conducted on this day to sensitize the students and staff on the constitution of India.

## 2.2.9 Has the institution incorporated the principles of Life Style Modifications for students based on Eastern approaches in their day to day activities?

Yes. Faculty members emphasize the need of lifestyle modifications for the students on regular basis. University has provided excellent facilities for indoor & outdoor games. University has physical education institute in same campus where students can avail training in concessional rate.

Ayurveda stresses on prevention of disease and thus rightly includes Dinacharya (daily regimen), Rutucharya (seasonal regimen), Viruddhahar

#### Criterion - II: Teaching-Learning and Evaluation

(incompatible food), Pathya – Apathya Aahar (congenial & in congenial food) and Yoga.

## 2.2.10 Has Yoga/Meditation/any other such techniques been practiced by students regularly as self-discipline?

Yes, the institutes always encouraged the students for active participation yoga and stress management programs. The **Dental College** has separate 2000sq.ft. Yoga and Meditation hall and regular classes are conducted for students and staff.

Our campus has **Ayurveda College** and hospital and special trained faculty has been appointed as a yoga teacher who conducts the sessions for the student regularly. Institutes have celebrated international yoga day on 21<sup>st</sup> June 2015.

## 2.2.11 How does the institution attend to the diverse health issues (physical and mental) of students and staff?

The university provides various welfare schemes to assist the students and staff.

Diverse health issues of students are taken care through various institutional committees. Bharati Vidyapeeth Health Scheme provides free Medical and Dental check- up to all students and staff every year. The hospital provides Medical and Dental treatment at free or at concessional rates.

Student welfare/ Council- deal with personal problems of the students.

Students can discuss their personal issues with the committee members.

Students requiring regular care of a psychiatrist/counselor are guided to the counseling cell.

In Medical College a Health committee has been formed to help the students with regards to their Medical problems and in some institutesMedical cell (OPMSC – Out Patient Medical Support Cell).

Mental stability and healthy state of mind of both students and staff is maintained by regular conduction of personality and skill development programmes (yoga, stress management).

# 2.2.12 Does the institution cater to the needs of groups / individuals requiring special attention by conducting group classes / special individual trainings / focused group discussion / additional training measures etc.?

Programmes are framed keeping students as the centre. Special attention is given to students of differences e.g. foreign students are taught separately and in a method they can adapt, slow learners are improvised by special attention given in the form of remedial courses while encouragement is given to the advanced learners to participate paper/poster, participate in quiz, and do projects.

#### 2.3 Teaching-Learning Process

## 2.3.17 Does the institution use telemedicine facilities for teaching-learning processes? If yes, cite a few instances.

Department of Obstetrics and Gynaecology, Medical College in collaboration with FOGSI has a satellite/ video conferencing facility as and when required. Audiology institute has Tele rehabilitation facility.

A Tele rehabilitation unit was set up in the department of Audiology and speech language pathology keeping in view the increasing need for service and the shortage of personnel across different parts of the country. Inauguration of the Tele rehabilitation unit was done on 30/8/2011. It was started because many of the clients have to travel great distances to get to SASLP, the institute decided to evaluate whether, speech language therapy through teletechnology can be a possible way of improving accessibility and cost effectiveness of services for these clients.

## 2.3.18 Does the institution utilize any of the following innovations in its teaching-learning processes?

- ICT enabled flexible teaching system.
- Reflective learning.
- Simulations.
- Evidence based medicine.
- Emphasis on development of required skills, adequate knowledge and appropriate attitude to practice medicine.
- Problem based learning (PBL).
- Student assisted teaching (SAT).
- Self-directed learning and skills development (SDL).
- Narrative based medicine.
- Medical humanities.
- Drug and poison information assistance centre.
- Ayurveda practices.

- Yoga practices.
- Yoga therapy techniques.
- Naturopathy and its practices.
- Any other.

#### • ICT enabled flexible teaching system:

Yes. ICT enabled learning by way of internet and digital library is the backbone of the Teaching-learning process. We are using following ICT systems i) E-learning, ii) E-library, iii) OFS (on line feedback system) and iv) DMS (Document management system).

#### • Reflective learning:

Reflective learning by hands on training and experiments enhances learning abilities of the students. Case discussions are modified as per experience of senior faculty.

#### Simulations:

Teaching on simulators and mannequins in **Medical and Dental** is also important to enhance practical skills of the students.

In Ayurveda Institute, Department of Shalakya Tantra simulates ocular surgeries on goat's eyes for PG students to enhance operative skills. This simulation is an excellent example of 'Yogya Vidhi' as stated in Ayurveda. Labour models, virtual dissection etc., are some other simulations employed.

In **Medical institute** Basic Life Support/ Advanced Cardiac Life Support (BLS/ACLS) workshops, SIM man is used by the clinical departments to facilitate clinical learning experience by students. In addition department wise skill labs are also available e.g. Medicine, Anaesthesia, EMS (ICU), Obstetrics &Gynaecology and Surgery

Videos of procedures and clinical examinations are also used by respective departments to enhance teaching learning process.

#### • Evidence based medicine:

The post graduate and doctoral studies and research projects are primarily targeted at developing an evidence based data

Each department organizes journal clubs/seminars/ group discussion/case presentation as part of the undergraduate as well as postgraduate teaching programme.

#### Criterion - II: Teaching-Learning and Evaluation

Medical institute organizes 1-2 Clinico-Pathological Conference (CPC) every year in which under graduate and postgraduate students participate. In addition, Pharmacovigilance is there through which monitors adverse drug reactions if any and maintains a record of the same. Antibiotic policy is designed by department of Microbiology for judicious use of antibiotics which will prevent resistance to antibiotics.

Death audit is conducted every month and important cases are discussed with regards to diagnosis, investigations and management.

#### Emphasis on development of required skills, adequate knowledge and appropriate attitude to practice medicine:

Emphasis is laid on development of required skill, adequate knowledge and appropriate attitude to practice medicine by clinical duties, grand rounds, presentations, publications, operative procedures of the respective speciality in different institutions.

#### • Problem based learning (PBL):

Problem based learning bear's utmost importance especially in clinical subjects. Management of critical patients, pre and post-operative management, medico-legal aspects are discussed in detail during the teaching learning process.

Seminars and article presentations-Undergraduate /postgraduate students are given topics for seminar presentation. A teacher guides the student about the topic and presentation. The student is expected to refer to various books and use power point presentation.

Clinics- Both UG and PG students attend small group teaching in the hospital. These clinics are based on the patients getting treated in the hospital. The cases are discussed in detail with the investigation reports like lab, Radiology-CT, MRI, Radiograph etc.

Case discussions- A specific case of importance is presented by UG/PG student. A discussion is held between faculty and the students about history taking, examination, investigations and management of the patient.

#### • Student assisted teaching (SAT):

Student assisted teaching (SAT) includes group activity, discussions, seminars, journal clubs, operative assistance etc. to name a few are a part of our regular practice that infuse confidence in the students.

#### Criterion – II: Teaching-Learning and Evaluation

In Medical college student assisted teaching is done through small group activity like practical's e.g. BP recording, blood group estimation, dissection in anatomy, blood, urine examination and histopathology. In hospital also small group teaching is done in the form clinics, case presentations and grand rounds. Students are also given small projects.

#### • Self-directed learning and skills development (SDL):

Self-directed learning and skills developments of the students done through Seminars/case/journal club presentation. Post graduate scholars prepare their own thesis and dissertation pertaining to their topic selected which is timely and regularly guided and scrutinized by the concerned guide.

In Ayurveda institute, students are also encouraged to assist in preparation of Ayurveda formulations like Chyavanprash, Shatavari Kalpa, Medicated oils etc. in the pharmacy or departmental museum development.

#### • Narrative based medicine:

In Medical institute PG orientation programme through ME unit and respective department were conducted

The Ayurvedic Samhita is an unlimited source of knowledge in the narrative form. It forms the foundation of Ayurvedic teaching learning process. This narrative based learning is the foundation of the theoretical knowledge imparted which is then put to use in clinical practice.

#### • Medical humanities:

In BHMS forensic medicine faculty teaches Medical humanities. A guest lecture on medico-legal aspects is organised to teach the Medical humanities' required for the Medical profession.

In Medical institute, Mirage- student festival is an important platform for the students to imbibe cultural ideas that will help them in the longer run to develop their personality as a holistic physician.

#### • Drug and poison information assistance centre:

Bharati Vidyapeeth Poona college of Pharmacy has a centre that gives information regarding the Drugs and poison.

In Ayurveda institute the Pharmacovigilance committee of the institution keeps a vigil on the untoward or harmful effects of drugs thus ensuring adherence to Medical ethics. Drugs used in the hospital are monitored by the cell. Interns and PG students are made aware of the safety of drugs in Medical College pharmacology department acts as a poison information centre. The

department of Forensic Medicine also guides the physician with regards to poisons.

#### Ayurveda practices:

In our campus 200- bedded **Ayurveda hospital** caters to the diverse needs of the society with various Ayurvedic treatments. Herbal garden and an in-house pharmacy supply some medicines to the hospital.

#### • Yoga practices and Yoga therapy techniques:

Courses or daily practices on yoga/art of living are organised in the campus or in each institutes for the students and staff. Yoga is an integral part of the Ayurveda curriculum and practical are conducted regularly. Yoga therapy is advised to patients as needed and students can thus understand the benefits of Yoga in various conditions. Dental college conducts regular classes on yoga for students and staff. In addition the department of Obstetrics and Gynaecology of Medical College conducts Garbhasanskar programme for pregnant woman.

#### • Naturopathy and its practices:

Naturopathy is available at **Ayurveda College**. This facility is made available to those patients who opt for it.

# 2.3.19 Does the institution have an Electronic Medical Records facility, staffed by trained and qualified personnel? Is it used for teaching-learning process?

Yes, all the health science institutes have an Electronic Medical Records facility. It is staffed by trained and qualified persons.

In **Medical College and Hospital**, the department is computerized and follows ICD classification given by WHO in maintaining records. Each and every patient is given a discharge card with necessary instructions regarding treatment given, follow up, care and emergency reporting to casualty if needed. Videos of surgeries are used for teaching-learning process.

In **Dental College**, records are maintained in soft copy as well as in hard copy. The registration number is provided to students, who have examined the particular case, for assistance in teaching-learning activity (e.g., radiographic interpretation, research). The institute also has a digital Intra Oral Peri Apical Radiograph and Oral Panto Gram facility which maintains the data electronically, which can be accessed whenever required for teaching-learning process.

#### Criterion – II: Teaching-Learning and Evaluation

In college of **Ayurveda and Homoeopathy**, software 'Lifeline' by Manorama has been installed for the same. This enables accurate data analysis and retrospective study and is used for teaching-learning process.

# 2.3.20 Does the institution have well documented procedures for case sheet writing, obtaining informed consent and the discharge process of the patients?

Yes. Each clinical department in institutes has designed case summary sheet, informed consent sheet, operative notes and discharge summary as per clinical profile. Revisions are done in these departments as and when required.

In the College of Homoeopathy, the documented procedures for case sheet writing format are displayed in each of Clinical department OPD for the Learner to follow.

# 2.3.21 Does the institution produce videos of clinical cases and use them for teaching-learning processes?

Yes. Faculty members in each institute prepare videos of interesting and unconventional clinical cases for use in presentations both in internal and external lectures. These videos put on institute ICT website so that student can see online.

In the Medical hospital, major operation theatre is equipped with CCTV facility which is utilized by the students to enhance their knowledge and skills. DVDs of rare clinical cases and surgeries are available in the respective institutes and students can refer to them as per the requirement.

# 2.3.22 Does the institution perform medico legal/post-mortem procedures with a view to train the undergraduate and post-graduate students in medico legal procedures?

In the **Medical College**, as per GR, UG students, in a batch of 15 are taken to Sassoon hospital Pune for observation of medico-legal autopsies. Students observe at least 10 cases and prepare a report of them.

In the **Ayurveda College**, II year BAMS and PG Agadtantra students visit the Sassoon General Hospital at least one week per year for observation of postmortem procedures.

Court procedures and medico-legal testimonies are also shown to the students at the Shivaji Nagar Sessions court.

In other institutes, students are taught regarding medico legal issues in their curriculum and special class is organized to enlighten the knowledge on medico legal cases. But the parent hospital follows the medico legal procedure.

## 2.3.23 Does the institution have drug and poison information and poison detection centers? How are these used to train the students?

In the **Medical College**, Forensic medicine and toxicology faculty is consulted as per the need with reference to poisoning cases admitted in Bharati Hospital.

In the **Ayurveda College**, the museum of the Department of Agadtantra displays a variety of poisons with their fatal dose, period, toxic effects and management. Poison Information centre has been established in Poona college of Pharmacy. Annual visits to the Forensic Science Laboratory create an awareness of methods of detection of poisons.

In other health science institutes, the students are oriented about drug and poison through pharmacology lectures.

# 2.3.24 Does the institution have a Pharmacovigilance / Toxicology centre /clinical pharmacy facility / drug information centre/Centre for disease surveillance and control/ Prevention through Yoga/Promotion of positive health/Well-equipped Psychology Laboratory/ Naturopathic diagnostic centre, etc.?

Pharmacovigilance cell exists in Pharmacology department of **Medical College** Clinical pharmacy & Drug Information Centre is present in the Medical hospital. ADR reporting is done and analyzed by the department of Pharmacology. Bharati hospital is recognized centre for H1N1 by Government.

The **Ayurveda institute** has a pharmacovigilance cell that monitors the drugdisease relativity. Similarly, the DOTs centre in the hospital assists in surveillance and control of tuberculosis. Prevention through Yoga and Naturopathy, Diagnostic Centre are some characteristic features of Ayurveda our institution that abide with the aim of Promotion of positive health through a holistic approach is the aim of Ayurveda we believe and strongly advocate. Swasthasya Swasthya rakshanam.

#### 2.3.25 Laboratories / Diagnostics

- How is the student's learning process in the laboratories / diagnostics monitored? Provide the laboratory time table (for the different courses)
- Student staff ratio in the laboratories / diagnostics.

  All the concerned institutes have well equipped laboratories. UG and PG students are posted to the laboratories as per the time table in small batches. Batch-wise laboratory teaching is conducted as per the time table displayed in

#### Criterion – II: Teaching-Learning and Evaluation

each department. The basic techniques like blood examination, urine examinations, histopathology etc. are taught and monitored carefully.

There is central clinical laboratory at Medical hospital which provides safe and quality services to the patients.

Student staff Ratio in the laboratories – UG 1:5 to 1:20 and PG 1:1 to 1:5.

# 2.3.26 How many procedures / clinical cases / surgeries are observed, assisted, performed with assistance and carried out independently by students in order to fulfill learning objectives?

The curriculum for UG and PG for the enhancement of clinical knowledge is designed as per the rules and regulations of regulatory bodies like MCI, DCI, CCH, INC etc.

UG students during their clinical postings rotate through OPD and various departments of respective specialty. They maintain their record through the respective journals. UGstudent observe 80% of the OPD/IPD cases and 70-80% of operatives/procedures during their clinical duties

Interns training include their active participation in patient management by attending OPD, performing and assisting clinical procedures under supervision. Interns maintain record of their activity through journal/ files.

PG students assist all major operations/procedures and senior PGs perform approximately 25% of these under guidance. They perform 70-75% of minor procedures independently. The advanced learners are encouraged and motivated to perform additional cases to add to the total. They maintain their log book.

In Medical College, PG: JR I- assist all minor and few major surgeries. JR II / III assist almost all major and perform surgeries under supervision as per the curriculum.

In Dental college post graduate students also perform various clinical procedure in their respective speciality as per DCI guidelines.

Students are encouraged to present/publish rare cases/procedures performed or assisted by them on various scientific platforms.

# 2.3.27 Does the institution provide patients with information on complementary and alternative systems of Medicine?

Yes, the institutions offers information to the patients on complementary alternative systems of Medicines like diet and nutrition, naturopathy, yoga, etc as applicable by way of health education both to the inpatients and out patients.

The campus has **Ayurveda and Homeopathy College** and hospital where all this alternative medicine practices are conducted. Swasthavritta department suggests Yoga and Naturopathy therapies as per the patients' requirement. A separate physiotherapy unit is also functional under the aegis of the panchakarma department.

Patients can also avail of facilities in other branches of medicines of our university like Homeopathy, Dental, and Medical etc.

## 2.3.28 What are the methods used to promote teaching-learning process in the clinical setting?

The academic calendar is prepared such that students will learn the skills in their clinical postings in the respective specialty. Following methods are used to promote teaching-learning process in the clinical setting:

- Bed side clinics
- Grand rounds, OPD and IPD clinics
- Hands on training using simulators and models in skills lab or clinics
- Projects in collaboration with laboratories.
- Journal clubs, seminars, case presentations, problem based learning
- Celebration of various days / week e.g. in Medical college, breast feeding week, autism day, anti-tobacco day etc. are celebrated by displaying posters, collage competition and skits. In Dental college celebrating Anti-tobacco day, World oral health day etc.
- OSCE/ OSPE is used for evaluation.
- Community survey in clinics of GPs.
- Posting in GP clinics for VI semester students of Medical College.

#### 2.3.29 Do students maintain log books of their teaching-learning activities?

Yes, UG students are required to maintain journals/ files to record their practical and clinical work.

PG students maintain a logbook to keep a record of all departmental activities, presentations, publications, visits, UG teaching, seminars etc.

Interns are instructed to maintain a file of the activities done in their clinical posting in the respective department.

# 2.3.30 Is there a structured mechanism for post graduate teaching-learning process?

Yes. Post graduate teaching-learning process is designed per the rules and regulations of regulatory bodies like MCI, DCI, CCH, INC etc.

A structured mechanism for PG teaching-learning process is followed which includes

- Lectures and Practical's
- Research projects
- IPD/OPD duties in rotations of 24 hours/day.
- Weekly seminars and CMEs.
- UG teaching.
- Field visits
- Case presentations
- Daily operative procedures
- Daily ward rounds
- Grand rounds
- ICU management
- Presentations in seminars and conferences
- Publications in peer-reviewed journals.
- Guest lectures.

This is in accordance with a pre-planned time-table of each department. Each PG student maintains a log book.

#### 2.3.31 Provide the following details about each of the teaching programs:

- Number of didactic lectures
- Number of students in each batch
- Number of rotations
- Details of student case study / drug study
- Nursing Care Conference (NCC)
- Number of Medical / Dental procedures that the students get to see
- Mannequins / Simulation / skills laboratory for student teaching
- Number of students inside the operation rooms at a given time
- Average number of procedures in the ORs per week, month and year
- Autopsy / Post-mortem facility

#### • Number of didactic lectures:

Number of lectures is prepared as per academic calendar which follows the rules and regulations of regulatory bodies like MCI, DCI, CCIM, INC etc.

#### • Number of students in each batch:

The number of students varies according to the method of teaching. For practical the batch is of 25-30 students. For clinical posting the batch is of 20-25.

#### • Number of rotations – Medical College

Subjects	3-Sem. Weeks	4-Sem Weeks	5-Sem Weeks	6-Sem Weeks	7-Sem Weeks	8-Sem Weeks	9-Sem Weeks	Total
General Medicine	6	-	4	-	4	6	6	26
Pediatrics	-	2	-	2	2	2	-	10
TB & Chest	-	2	-	-	-	-	-	2
Skin & STD	-	-	-	2	-	2	-	6
Psychiatry	-	-	2	-	-	-	-	2
Radiology	-	-	-	-	2	-	-	2
General Surgery	6	-	4	-	4	6	6	26
Orthopedic s	-	-	4	4	-	-	2	10
Opththalmo logy	-	4	-	4	2	-	-	10
ENT	-	4	-	4	-	-	-	8
ObGyn & Family Planning	2	4	4	-	4	4	6	24
Community Medicine	4	4	-	4	-	-	-	12
Casuality	-	-	-	2	-	-	-	2
Dentistry	-	-	-	-	2	-	-	2
Total	18	22	18	22	18	22	22	142

#### Medical College - Internship Schedule -

**Compulsory Posting** 

- Community Medicine 2 months
- Medicine including 15 days of Psychiatry 2 months
- Surgery including 15 days Anaesthesia 2 months
- Obst./Gynaecology including Family Welfare Planning 2 months
- Paediatrics -1 month

- Orthopaedics including PMR-1 month
- ENT -15 days
- Ophthalmology -15 days
- Casualty- 15 days

#### Elective posting (1x15 days)-15 days

Subjects for Elective posting will be as follows:

- Dermatology and Sexually Transmitted Diseases.
- Tuberculosis and Respiratory Diseases.
- Radio-Diagnosis
- Forensic Medicine
- Blood Bank
- Psychiatry

#### **Dental college**

UG students have their posting 2-3 weeks in the respective subjects as per DCI guidelines and intern has 2 month rotary postings each department except Public health department where they are posted for 3month.

Postgraduate students from Oral surgery, Oral pathology, Pedodontics and conservative dentistry do rotary posting to different institutes and hospital of their respective speciality.

#### Ayurveda College

The UG students of BAMS are equally divided into practical/clinical batches that are rotated regularly on a subject wise basis.

Interns are also divided into department-wise batches as per the norms of CCIM.

PG, PG diploma students are allotted rotational duties within department as per the subject requirement. PG students from the clinical side are allotted 24 hour duties in the hospital on a rotation policy.

#### **Homeopathy College**

Number of rotations – I B.H.M.S Twice a week / student/subject I, III, IV B.H.M.S Once a week / student / subject

In nursing college each student gets equal rotation in a specific clinical area as per clinical rotation plans and prescribed clinical hours as per the INC.

#### Details of student case study / drug study:

**Ayurveda College-** The departments have separate formats for case study which is followed by all UG and PG students during their learning span. Drug and drug formulation study designed by departments of Dravyaguna and Rasashastra for UG / PG student is followed.

#### **Nursing Care Conference (NCC):**

In Health institutes as a part of regular duties allotted to interns and resident PG students, special techniques of patient care are taught. Conscious efforts are taken to train them in specialized conditions of patient care e.g. regular group discussions in the dos and don'ts of patient care, lectures on post exposure care, etc.

At undergraduate level students are taught in small groups about history taking, examination techniques, investigations and management of patients.

#### Number of Medical / Dental procedures that the students get to see:

The students get to see various procedures and surgeries during their posting in various clinical departments.

Intramuscular injections, Intravenous injections, Venesection, Dressing, Pleural tapping, Peritoneal tapping, Lumbar puncture, FNAC, Lung Biopsy, Liver Biopsy, Bone marrow aspiration, Suturing of wounds, Incision and drainage of abscess, Central venous line, Endoscopy, Intercostal drainage etc.

The UG students get to observe at least three procedures during their postings. The PG students and interns of concerned department remain in the respective department observing and performing all the cases.

In **Dental College** procedures such as disimpaction, fabrication of dentures, various laboratory procedures, Implant surgeries, periodontal surgeries and apicectomy etc. are seen by students.

#### Mannequins / Simulation / skills laboratory for student teaching:

Apart from the bodies and patients as learning aids, institutes also make an adequate use of mannequins, simulators and skill laboratories as teaching tools. Institutes are well equipped with skills laboratory, simulators and mannequins for practical skill development of students prior to handling of patients.

**Dental College** has 2 phantom head laboratories with simulators for real life experiences which helps the students in clinical experience. In oral surgery, various injection techniques are demonstrated on the skull and the mandible. Typhodont exercises are used by the various departments as simulator

#### Criterion – II: Teaching-Learning and Evaluation

exercises for UG and PG students. Extracted teeth are also used for carving teeth as well as for root canal treatment demonstration.

In **Ayurveda College** this is practiced in departments of Shalakya, Shareer, Agad, Streeroga, etc.

#### 2.4 Teacher Quality

# 2.4.9 Does the institution have a mechanism to retain faculty? What is the annual attrition rate among the faculty?

Yes, faculty enrichment activities, motivation of faculty for higher qualification with leave being granted and rewards to out-standing faculty are some ways of retaining expert faculty. In many of our institutes, faculty has been given the opportunity to do post-graduation, whilst in service after fulfilling the eligibility criteria.

The student and research-oriented academic environment of the college is in itself a magnet that draws the expert and trained faculty towards it. Staff members encouraged to carryout research by providing them infrastructural facilities as well as funds, thus creating a scientific temperament.

The faculty is also retained by itself by the healthy atmosphere and smooth functioning of the academics and hospitals under the instructions of the HOI. Thus a compatible and healthy work culture adds to it.

The annual attrition rate among the faculty is less than 1 %.

Besides this, the Institutions provide various facilities to retain the faculty like - Various leave options, Health scheme, Sevak Kalyan Nidhi, Financial assistance is provided for attending national, international conferences, Special on duty leave (for conferences, as a examiner), Internet and digital library facility, Free access to various scientific journals.

#### 2.5 Evaluation Process and Reforms

# 2.5.9 Does the institution have a Manual for Examinations and if yes, does it specifically take cognizance of examination malpractices by students, faculty and non-teaching staff?

Yes. The institution follows the rules and regulations as per the University Manual of examination in context of malpractice by students, staff and non-

teaching staff. Exam malpractices committee at University level investigates the cases reported by individual colleges.

# 2.5.11 What are the efforts of the institution in the assessment of educational outcomes of its students? Give examples against the practices indicated below:

- Compatibility of education objectives and learning methods with assessment principles, methods and practices
- Balance between formative and summative assessments
- Increasingb objectivity in formative assessments
- Formative (theory/orals/ clinical/ practical) internal assessment; choice based credit system; grading/ marking
- Summative (theory\ orals/ clinical/practical)
- Theory- structure and setting of question papers essays, long answers, short answers, and MCQs etc.Question bank and key answers
- Objective Structured Clinical Examination (OSCE)
- Objective Structured Practical Examination (OSPE)
- Any other.

# • Compatibility of education objectives and learning methods with assessment principles, methods and practices:

The educational objectives of teaching learning methods and the assessment of part of educational spiral are all interlinked. There is an absolute compatibility between the objectives, teaching learning methods and assessment. Based on the objective, teaching learning methods as well as assessment is planned.

#### • Balance between formative and summative evaluations:

As per the recommendations of MCI, the weightage for internal assessment i.e. formative evaluation is 20%. The final university examination (summative) has a weightage of 80% for theory and practical.

#### • Increasing objectivity in formative evaluations:

All the formative evaluations are objective. The college has introduced MCQ, SAQ and OSCE pattern in different subjects in the formative evaluations to increase objectivity.

# • Formative (theory / orals / clinical / practical) internal assessment; choice based credit system; grading / marking:

All the formative internal examinations consist of theory, practical, clinical and orals as per the subjects. There is no choice based credit system or grading currently in the Medical curriculum. The college follows the marking system. All the departments conduct a minimum of 5 examinations during the academic year of one or one and half years.

#### • Summative (theory / orals / clinical / practical):

The final university examination also follows the theory, practical, clinical and oral examination pattern. It is based on marking system. The candidate is usually assessed by 4 examiners of which 2 are internal examiners and 2 are external examiners.

# • Theory – structure and setting of question papers – Essays, long answers, shorts answers and MCQs etc. Question bank and Key answers:

The Structure of each question paper is defined. There are two external paper setters, of which one is from out of the state and one from within the state. Both of them independently set the paper. Three sets of papers are sent by the paper setters. The chairman moderates the paper. There are no essay type questions but long answer questions and short answer question. MCQs are not included for the final examination but are included in internal examinations. A Question bank is prepared at the department level. Answers to questions are discussed in class after the exam or on one to one basis. Also, ideal answers are put on notice board.

#### • Objective Structured Clinical Examination (OSCE):

OSCE has been introduced in clinical subjects, in their formative examination.

#### CRITERION - III: RESEARCH, CONSULTANCY AND EXTENSION

#### 3.1 Promotion of Research

# 3.1.2 Does the institution have an institutional ethics committee to monitor matters related to the ethics of inclusion of humans and animals in research?

All the health science institutes have institutional ethics committee. The composition is according to ICMR guidelines. The ethics committees are registered with Central Drugs Standard Control Organization (CDSCO). All research projects have to obtain the ethics committee clearance, before the commencement of the project.

The projects to be submitted to Ethics committee need scientific committee approval. Ethics committee looks into ethical and scientific aspects of research. Committee also suggests corrections, modifications wherever necessary. The project is approved after due Ethical and Scientific Corrections.

In addition, there is a scientific Advisory committee in MedicalCollege which scrutinizes various projects.

There is also an Animal Ethics Committee in Medical College, which reviews various projects involving animal experiments. It is as per CPCSEA guidelines.

The projects to be submitted to Animal Ethics committee also needs scientific committee approval. Animal Ethics committee looks into ethical and scientific aspects of research involving animals. Committee also suggests corrections, modifications wherever necessary. The project is approved after due Ethical and Scientific Corrections.

Number of Projects Received in last 4 years are 102 while the number of Projects approved are 98.

# 3.1.13 Mention the initiatives of the institution to facilitate a research culture in the below mentioned areas:

- Training in research methodology, research ethics and biostatistics
- Development of Scientific Temperment
- Presence of Medical/ Bio Ethics Committee
- Research linkages with other institutions, universities and centers of excellence (national and international)

- Reserach programmes in Basic Sciences, Clinical, Operational Reserach, Epidemiology, Health Economics etc.
- Promotional avenues for translational research
- Instilling a culture of research among undergraduate research
- Publication-based promotion/incentives
- Providing travel grant for attending national/ international conferences and workshops

#### • Training in research methodology, research ethics and biostatistics:

Every year workshops are conducted in Research Methodology for newly admitted resident and for third year residents. The workshop deals with methods in research, ethics and biostatistics.

#### • Development of scientific temperament:

The undergraduate and postgraduate students are encouraged to present papers in Research Society Conference which is an in-house conference. The students are also encouraged to present posters and papers in National and State conferences.

The undergraduate students are encouraged to take part in UG conferences and various quiz programmes organized by various associations and colleges.

Special leave is granted to faculty for presenting scientific papers in various conferences.

#### • Presence of Medical / Bio Ethics Committee:

The Institutional Ethics committee has been working since many years. Apart from staff of colleges, there are experts from outside institutions on these committees. The ethics committee conducts regular meetings for presentations of synopsis of postgraduate students. The students are directed to make corrections if any.

## • Research linkages with other institutions, universities and centers of excellence. (National and international):

The college has research collaborations with local, National as well as International level institutions. For example, within University College of Ayurveda, College of Pharmacy, Medical College- Sangli collaborate. At National level linkages are established with National Institute of Epidemiology (NIE) and NIV, Pune. The international level linkages are with Department Zoología Antropología Física Facultad de Biología, Campus Universitario Ctra. Madrid-Barcelona, Anatomy Department, Taibah University Saudi Arabia and Bill and Melinda Gates Foundation.

#### Research programs in Basic Sciences, Clinical, Operational Research, Epidemiology, Health Economics, etc:

The health institutes are recognized centers to conduct PhD programs of the University in many subjects. The staff is encouraged to register for PhD. In last three years three staff members from department of biochemistry were awarded PhD. Department of Pediatrics has established a **Pediatric Clinical Research Unit** in 2014.

The Department of Community Medicine has completed one Operational Research Project on Tuberculosis titled 'Delay in diagnosis and treatment of Tuberculosis patients registered under RNTCP'. This project was funded by RNTCP.

#### • Promotional avenues for multi-disciplinary, inter-disciplinary research:

Since the Dhanakwadi Campus, Pune houses multiple disciplines of medicine i.e. Medical, Dental, Ayurveda, Homeopathy, Nursing and Interactive Research School of Health Affairs, there is ample scope for interdisciplinary research. In fact these institutions have such collaborative research activities amongst them.

#### Promotional avenues for translational research:

Translational research is carried out as a part of postgraduate programmes. Evidence based medicine is practiced in management of patients. Some noteworthy outcomes of these practices include formulation of Antibiotic policy for the Hospital, conducting Death Audits and establishment of Tumour board in Obstetrics and Gynaecology.

#### • Instilling a culture of research among undergraduate students:

All the undergraduate students are encouraged to do research. Many students have done ICMR-STS projects and presented papers at conferences. Paper presentations by Undergraduate and postgraduate students is encouraged. Interns in Homeopathy College have to undertake a project during internship.

#### Publication-based promotion/incentives:

The institute provides travel grant for attending national/international conference and workshops. Promotion of the staff is based on teaching experience as well as on publications as first and second author.

#### 3.1.14 Does the institution facilitate

- R&D for capacity building and analytical skills in product development like diagnostic kits, biomedical products, etc. for the national/international market?
- Development of entrepreneurship skills in health care?

- Taking leadership role for stem cell research, organ transplantation and harvesting, Biotechnology, Medical Informatics, Genomics, Proteomics, Cellular and Molecular Biology, Nanoscience, etc.?
- R&D for capacity building and analytical skills in product development like diagnostic kits, biomedical products, etc. for the national/ international market:

The department of Pediatrics of **Medical College**, Pune conducts many trials for various pharmaceutical companies. Pediatric department has been part of research team for development of  $H_1N_1$  vaccine by Serum Institute Pune. Pediatrics department is also involved in surveillance for Rotavirus with National Institute of Epidemiology, Chennai.

In house Ayurveda pharmacy produces and develops many formulations based on textual references from Authentic Ayurveda texts. These formulations are standardized in Rasashastra-Bhaishajya kalpana laboratory as per API (Ayurveda pharmacopeia standards). The manufacturing unit of Rasashastra-Bhaishajya kalpana has state of the art equipment and instruments needed for its purpose.

Shalya tantra department has developed a designed heated metal rod i.e. Shalaka instrument to measure the temperature of the heated before bringing it in contact with the patient's body. It helps to record and analyze temperature gradients.

Kaumarbhritya department of the College of Ayurved prepared special syrups, suspensions, drops and Malahar form classical formulations for ease in administration of drug and for comfort to take medicine for children.

#### • Development of entrepreneur skills in health care:

The faculty is encouraged to organize conferences and CME programmes.

The undergraduate students are encouraged to organize programmes like skits, rallies and sports events.

Regular programmes and lectures are organized for UG and PG students to develop good clinical practices and development of private practice.

COA organizes career guidance programmes and guest lecturers for establishment of health care centre, Panchakarma centre, nursing centre, Spa, yoga centre etc.

• Taking leadership role for stem cell research, organ transplantation and harvesting, Biotechnology, Medical Informatics, Genomics, Proteomics, Cellular and Molecular Biology, Nanoscience, etc.:

The health institutes have many research projects and collaborations with IRSHA which are interdisciplinary.

Research in Cellular and Molecular Biology is encouraged as antibiotic resistance is big threat in health science sector. The outcome of this is the Antibiotic policy for Bharati Hospital.

The **Medical College** is in the process of development of a Renal transplant Unit.

• Homeopathy College has initiated two in-vitro studies one each with RGITBT & IRSHA namely:

IRSHA has a "Center for Innovation in Nutrition Health and Disease" (CINHD. IRSHA) for carrying out R&D for capacity building and analytical skill in products development such as

Diagnostic kits -Thalassemia Carrier Detection Kit (TCDK): National and International market, Biomedical products and development of low cost infection resistant urinary catheter for National and International markets (ongoing project in collaboration with Columbia University, New York)

Establishment of "Real World Nutrition Laboratory Foundation" (RWNLF) with precise objective of validating the research and development activities in BVU, for eventual commercialization and entrepreneurship development. Omega-3 health products (omega-3 enriched egg, milk, ghee, chicken, chocolate etc) have been developed at CINHD, by resourcing omega-3 fatty acid, from Flaxseed (linseed) and technologies are validated by RWNLF for commercialization and through entrepreneurship development.

• Entrepreneurship through DBT BIG grants being encouraged:

through technologies developed by CINHD that include validation of TCDK by mentoring entrepreneur (Mr. Yogesh Badhe), through DBT, Biotechnology Ignition grant (BIG) and Ashwagandha, Omega-3 formulation for Alzheimer, actively being considered for DBT, BIG grant to an entrepreneur (Mr. Santosh Devkar).

• Taking Leadership role in Biotechnology:

BVU has put forth unique "FLAX BIO-VILLAGE" concept, developed technologies for resourcing omega-3 from linseed to enrich food products and

played leadership role, in its mission the much needed "omega-3 nutritional security in the country" and good health for all.

# 3.1.15 Are students encouraged to conduct any experimental research in Yoga and / or Naturopathy?

Department of Physiology of the **Medical College** and College of Ayurved are involved in encouraging students to do research in Yoga.

In particular, College of Ayurveda has a separate subject of Yoga and Naturopathy under Swasthavritta department. This department conducts various research projects at PG and Ph. D. levels on yoga to know their effectiveness in various diseases. Patients of different departments are also referred for Yoga/ Naturopathy treatment. Interns and PG students witness the encouraging results of yoga and naturopathy therapies.

The Nursing College also encourages its students to do experimental studies in Yoga and Naturopathy. They have studied the effectiveness of various alternative therapies like play therapy, story narration, foot reflexology, byuteko technique of breathing, pranayama, hold and cold compresses, guggaldhupan, music therapy, laughter therapy on various health parameters.

#### 3.2 Resource Mobilization for Research

3.2.1 How many departments of the institution have been recognized for their research activities by national / international agencies (ICMR, DST, DBT, WHO, UNESCO, AYUSH, CSIR, AICTE, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.

Many undergraduate students from **MedicalColleges in Pune and Sangli** have done undergraduate projects sponsored by ICMR.

Furthermore, Medical College, Pune in conducting clinical trials for drug and vaccine testing and development supported by various Pharmaceutical industries.

Department of Pediatrics of the Medical College Pune as one of the centers in India worked jointly with the World Health Organization to conduct multicentric clinical trials in 2013. The results of the study have shown that giving bivalent Oral Polio Vaccine (bOPV) along with one dose of injectable Polio Vaccine (IPV) to the babies in primary vaccination schedule works effectively for our country.

This study was published in Lancet Journal (impact factor of 45) in September 2015. It also helped the Government of India to frame the policy for Polio vaccination in India.

#### 3.2.3 Does the institution have an Intellectual Property Rights (IPR) Cell?

The colleges maintain record of all the research carried out by various faculty members

Ayurveda Research Cell [ARC] and Medico legal adviser monitor the IPR related matters. They give advice regarding the prospects of a particular project, publications, process, product, patents, etc.

#### 3.3 Research Facilities

# 3.3.2 Does the institution have an Advanced Central Research facility? If yes, have the facilities been made available to research scholars? What is the funding allocated to the facility?

The University and the Institute have an excellent centre for advanced research facility. IRSHA is developed with the exclusive objective of Research. Facilities available at Rajiv Gandhi Institute of Biotechnology are available to all research scholars of the institute.

Many departments of Medical College and Hospital are doing collaborative work with IRSHA.

# 3.3.3 Does the institution have a Drug Information Centre to cater to the needs of researchers? If yes, provide details of the facility.

The Poona College of Pharmacy, a constituent unit of the University has developed a drug information center. The department of Pharmacology also gives information to the faculty as and when needed. The department also has a pharmacovigilance cell for reporting of adverse reactions. The hospital has installed software for references about drugs and important textbooks to provide recent information required.

#### 3.3.6 Clinical trials and research

- Are all the clinical trials registered with CTRI (Clinical Trials Research of India)?
- List a few major clinical trials conducted with their outcomes.

All the clinical trials are registered with CTRI. Some of the major trials conducted by department of Pediatrics are:

Sr. No.	Name of the Trial	Pharma Industry	Outcome
1	Synflorix Booster - A phase III, open study in children previously enrolled in study 10PN-PD-DIT-037(111188) to assess the immunogenicity, safety and reactogenicity of GlaxoSmithKline(GSK) Biologicals'10-valent pneumococcal conjugate vaccine when administered as a booster dose at either 9-12 or 15-18 months of age in primed children or when administered as a catchup vaccination (2+1Schedule) in primed children during the second year of life	GSK Biological	Project completed. Booster dose recommended at 12-15 months of age.
2	HPV Vaccine - A Phase III Clinical Trial to Study the Immunogenicity, Tolerability and Manufacturing Consistency of V503 (A Multivalent Human Pappilomavirus [HPV] L1 Virus-Like Particle [VLP] Vaccine) in Preadolescents and Adolescents (9 to 15 year olds) with a Comparison to Young Women (16 to 26 year olds)	MSD	Project completed. Vaccine licensed in US as Gardasil 9.
3	Quinvaxem -A Phase III, Single Arm, Multi-Center, Open-Label Study to Assess the Immunogenicity, Safety and Tolerability of a Fully Liquid Pentavalent Vaccine Quinvaxem® (DTwP-Hib-HepB Vaccine) when Administered to Indian Infants at 6, 10, and 14 Weeks of Age	Novartis India	Project completed. Vaccine licensed in India as Quinvaxem vaccine.
4	MenV0- A Phase 3, Multi-center, Open-label study to evaluate Immunogenicity and safety of	Novartis India	Project completed.

Sr. No.	Name of the Trial	Pharma Industry	Outcome
	Novartis Meningococcal ACWY conjugate vaccine (MenACWY-CRM) in healthy subjects from 2 to 75 years of age in India		
5	Infanrix Hexa - A Phase III, open-label, randomized, multicentre study to evaluate the immunogenicity and safety of GlaxoSmithKline Biologicals' combined DTPa-HBVIPV/ Hib vaccine (Infanrix hexa) administered to Indian infants according to a 6-10-14 weeks and a 2-4-6 months schedule	GSK Biologicals	Project completed.
6	Shan 5- Safety, Immune, Lot-to-Lot Consistency and Non Inferiority of Shan 5 (DTwP-HepB-Hib) Vaccine in comparison to Pentavac SD when administered as a Single Booster Dose at 15-18 months and Three Doses at 6-8,10-12 and 14-16 Weeks of Age in Healthy Indian Children and Infants	Shantha Biotec	Project completed. Vaccine licensed in India as Shan 5. Used by GOI for vaccination as Pentavalent vaccine at 6, 10, 14 weeks.
7	WHO Polio- Comparative evaluation of immunogenicity and reactogenicity of bivalent oral poliovirus vaccine (bOPV) and trivalent oral poliovirus vaccine (tOPV) in the standard EPI schedule, with or without inactivated polio vaccine (IPV) administration at DTP3 contact: A randomized controlled trial	WHO	Project completed. Following this study GOI will be introducing one dose of IPV in Universal Immunisation Programme.
8	FLU D QIV- A phase III, observer-blind, randomized, multi-country, non-influenza vaccine comparator-controlled study to demonstrate the efficacy of GlaxoSmithKline Biological'	GSK Biological Ltd	Project completed.

Criterion - III: Research, Consultancy and Extension

Sr. No.	Name of the Trial	Pharma Industry	Outcome
	quadrivalent seasonal influenza candidate vaccine GSK2321138A (FLU D-QIV), administered intramuscularly in children 6 to 35 months of age		
9	Hexaxim - Immunogenicity and Safety of Sanofi Pasteur's DTaP-IPV-Hep B-PRP-T Combined Vaccine Given at 6, 10 and 14 Weeks of Age in Infants from India Who Previously Received a Dose of Hepatitis B Vaccine at Birth. (A3L33)	Sanofi Pasture	Project completed.
10	IRSHA Effect of Lucronil® tablets in the patients with Leucorrhoea: an open clinical trial.	Siddhayu Ayurveda Research Foundation Private Limited	Project completed.

#### 3.4 Research Publications and Awards

# 3.4.3 Does the institution publish any reports/compilations/clinical round-ups as a part of clinical research to enrich knowledge, skillsand attitudes?

Each year the Medical College publishes a journal at the time of Research Society Conference to highlight the research work done in the institute. Faculty and students are encouraged to publish the case studies/ case reports, observational/ analytical studies etc. that include updates or new messages or the complications documented with their appropriate management.

Every month death audit is conducted in Bharati Hospital to discuss cases relevant from an academic point of view. Case details of the death audit are emailed to all faculty members to encourage their participation in the discussion and to seek their opinions.

## 3.4.11 Give details of the postgraduate and research guides of the institution during the last four years.

The health institutes offer various postgraduate and PhD programmes. Every college and department is having PG guides who guide PG students for research work (dissertation) along with overall guidance.

As per the regulations of respective councils there are about 200 postgraduate guides in various health science institutes.

#### 3.5 Consultancy

# 3.5.5 Give details regarding the consultancy services provided by the institution for secondary and tertiary health care centers and Medical / Dental practitioners.

Outreach through training in safe delivery practices has been conducted for Government Medical Officers through the 'Helping Mothers Survive Reaching The Roots' initiative where 160 Medical officers were trained to treat labour dystocia, ideal antenatal care, use of Partogram, prevention and management of Postpartum haemorrhage and contraceptive selection procedure.

The hospital conducts regular lectures for General Practitioners twice a month to upgrade their knowledge and enhance their skills.

The department of neonatology has given consultancy for NNF.

Department of Otorhinolaryngology has been conducting Temporal Bone Dissection workshops for last many years to enhance the skills of practicing ENT surgeons.

A consultancy service for blood fatty acid profiling as inflammatory marker, omega-3 index determination has been developed and service is being provided through RWNLF.

CMEs, workshops and group discussions on a variety of Ayurveda modalities and specializations are arranged. Medical practitioners are invited for the same. This helps to keep them updated about Ayurveda techniques.

Use of Ayurveda plants by the Dental practitioners in consultation with faculty members is a routine practice. e.g. Formulations and standardization of necessary Ayurveda drugs for Gandush [ gargle] for prevention of Dental related problems.

The institutes have satellite centres in rural areas to provide primary health care after which they are referred to the institute which provides them free treatment.

Through Mobile Clinic PG scholars & faculty from respective PG departments visit various rural areas in the district.

The institutes are also recognised centres for DOTS, H1N1 treatment. Bharati Hospital Pune has a MOU with DHO of Pune for referral of patients from PHC to Bharati Hospital.

# 3.6 Extension Activities and Institutional Social Responsibility (ISR)

# 3.6.8 What intervention strategies have been adopted by the institution to promote the overall development of students from rural/ tribal backgrounds?

Various strategies like orientation workshops, ward teacher system etc help students who come from rural background. The counseling cell of the college also helps the students to cope with the demands of the course. Student's council interacts with the student representatives quarterly to familiarize themselves with the problems faced by the students. Special attention is given by the faculty to such students through personalized monitoring.

Foster parent system to look after individual academic difficulties of the students. The learning resources like CDs, Videos, DVDs, Books, journals are made available to students.

Personality development and communication skill related lectures are conducted for these students through Student support cell.

#### 3.6.9 What initiatives have been taken by the institution to promote socialjustice and good citizenship amongst its students and staff? How have such initiatives reached out to the community?

Medical ethics and jurisprudence is part of II MBBS syllabus.

The students are made aware about various health issues, by organizing health rallies and street plays where students participate voluntarily.

The clarion call by Hon'ble PM Narendra Modi about cleanliness was followed by organizing a Swach Bharat Abhiyan in the campus in which the faculty and the students contributed proactively. The students also participate

in tree plantation programme. The institute organizes multi diagnostic free checkup camps that are attended by the students.

Some colleges have adopted PHCs like Pasli, Karanjawane and Khadakwasla for providing specialist care in Medicine, Pediatrics and Obstetrics & Gynecology. PHC Pasli is a very remote and tribal PHC in Velha taluka of Pune district

The student and faculty actively participate in various programmes for "Save the Girl Child". Posters are made by undergraduate and postgraduate students depicting the importance of Girl Child.

During the fresher's orientation programme the students are addressed about fostering friendship, brotherhood, communal harmony and secularism.

Motivational talks by eminent physicians are organized by the college. Some of the eminent doctors who have given a talk are- Dr.Himmatrao Bawaskar (Eminent Physician and pioneer on treatment of scorpion sting), Dr. Babhulakar (Eminent Orthopaedician), Dr. Abhay Bang etc.

The college also promotes gender equity in curricular and extracurricular activities in both students and staff.

The extension and community based outreach activities in the form of camps; health awareness lectures etc. ,benefit the students in terms of understanding the prevalent disease-conditions, treatment strategies and community mindset thereby developing clinical and interpersonal skills. Through Students Nurses association activities, they learn about different values to adopt in their life. Through Rural Health posting and National service scheme activities they learn the associative social process like cooperation, accommodation and assimilation. The above mentioned activities helped the students to teach those values to the community people through the medium of health education and national service.

## 3.6.10 How does the institution align itself with the annual themes/ programs of WHO/ICMR?

Every year, the Institutes and Hospital devise activities/ programmes to align with the annual themes/ programs announced by the WHO/ICMR. For example, **every year**, **the institutes celebrate like** International Week for the Person's with disabilities, Breast feeding week, Epilepsy day, World Kidney Day, Hand Washing Awareness Programme, Eye donation fortnight celebration, etc.

The department of Community Medicine organizes various activities at UHTC/RHTC/Field practice area, pertaining to the theme on WHO day each year. The interns and students actively participate in these activities. Based on WHO theme, institutes conduct health awareness programme, lectures, exhibitions, yoga camps etc. PG students and staff are motivated to undertake research projects based on the current WHO/ ICMR theme each year.

#### 3.6.11 What is the role of the institution in the following extension activities?

- Community outreach health programs for prevention, detection, screening, management of diseases and rehabilitation by cost effective interventions.
- Awareness creation regarding potable water supply, sanitation and nutrition.
- Awareness creation regarding water-borne and air-borne communicable diseases.
- Awareness creation regarding non-communicable diseases cardiovascular diseases, diabetes, cancer, mental health, accident and trauma, etc.
- Awareness creation regarding the role of healthy life styles and physical exercise for promotion of health and prevention of diseases.
- Awareness creation regarding AYUSH Systems of medicines in general and / or any system of medicine in particular.
- Complementary and alternative medicine
- Pharmaco economic evaluation in drug utilization.
- Participation in national programs like Family Welfare, Mother and Child Welfare, Population Control, Immunization, HIVAIDS, Blindness control, Malaria, Tuberculosis, School Health, anti-tobacco campaigns, oral health care, etc.
- Promotion of mental health and prevention of substance abuse.
- Adoption of population in the geographical area for total health care.
- Research or extension work to reach out to marginalized populations.
- Community outreach health programs for prevention, detection, screening, management of diseases and rehabilitation by cost effective interventions:

The health institutions organize various health camps. The outreach programmes are for prevention, screening, detection, and management of diseases. The hospital provides low cost intervention and rehabilitation measures.

Community outreach programmes are conducted in collaboration with various NGO's, DHO, Government of Maharashtra, Rotary club etc.

Undergraduate and postgraduate students and interns participate in the extension activities.

Regular cancer detection camps for cancer cervix wherein all participants are screened by VIA. Screening and treatment, followed by cryo cautery if required.

Thalassemia carrier detection kit is an innovative tool, developed by BVU to community screening for thalassemia carrier. Prevention of carrier-carrier marriage can prevent thalassemia birth in the country.

Screening for anaemia and Dental health is also done.

School health camps, adolescent health camps and awareness programs for students are conducted. Awareness about personal hygiene, menstrual cycle, reproductive health, sexuality and obesity are imparted to school girls. Health education camps related to osteoporosis, menopause, ageing, etc for elderly women

Mobile clinic of Homoeopathy Institute provides treatment at a very low cost to twelve nearby rural areas.

#### Awareness creation regarding potable water supply, sanitation and nutrition:

The faculty and students visit various slum areas as well as PHC's. They conduct health education programmes and activities in reference to water supply and sanitation.

Health institutions create awareness among community people through health talk, exhibition, street play, puppet show, health related entertainment programmes, distribution of pamphlets and posters on potable water supply, sanitation and nutrition. Community Medicine Department organizes Hand Washing Awareness Programme in nearby villages.

Community Medicine Department conducted National Nutrition Week celebration and an awareness programme on food adulteration for 33 Anganwadi workers at UHTC, Pune.

Awareness camps with lectures on potable water and the fluoride content in the water, ill effects of excessive fluoride like fluorosis are delivered. The prevention and treatment modalities for the same are initiated.

#### Awareness creation regarding water-borne and air-borne communicable diseases:

The institutes have adopted some villages in nearby area of Pune and Sangli district. The institute conducts regular awareness drives by arranging health camps and lectures/presentations/NSS camps.

The interns and students create awareness regarding water and air borne diseases in community as well as in health centers.

Street play on "Prevention of vector borne diseases" byundergraduate Medical students is done

CME on vector borne diseases (WHO Day theme 2014) was also organized by Community Medicine department.

UG and PG students of community Medicine department undertake lectures in schools to create awareness about air borne and water borne diseases.

Training regarding ORS is given as an outreach activity. Project is being conducted with grants from Bill & Melinda Gates Foundation & INCLEN Trust International, New Delhi regarding awareness about prevention of Pneumonia

#### Awareness creation regarding non-communicable diseases cardiovascular diseases, diabetes, cancer, mental health, accident and trauma, etc.:

Prevalence of non-communicable diseases is increasing day by day. India is on the way to be the diabetes capital of the world. Hence awareness about non communicable diseases in the community is vital.

The various departments of the institute conduct awareness camps, give lectures at various forums, and educate the community about these diseases.

Health camps for midlife women are conducted which include screening for metabolic diseases such as osteoporosis, obesity, hypertension, thyroid diseases, diabetes etc.

Diabetes, thyroid and cataract detection, screening and treatment camps are regularly conducted in urban and rural areas.

Camps, awareness programmes and lectures on breast cancer and cervical cancer are routinely conducted for community.

Educational posters and video clips on various non-communicable diseases are displayed at various points in the hospital.

Awareness lectures are specially conducted for college students to educate them about wearing helmet and seatbelts while driving to prevent morbidity.

# • Awareness creation regarding the role of healthy life styles and physical exercise for promotion of health and prevention of diseases:

The faculty and the students organize lectures for public to create awareness about healthy life styles and physical exercise.

A Street/ role play is also done by undergraduate students in field practice area of UHTC for making people aware about ill effects of addiction and the ways to prevent them.

Every year on International Woman's Day a special exhibition is held to highlight the health problems of women and the benefits of healthy lifestyle.

The faculty advises the patients and their relatives about importance of Yoga to maintain physical/mental health and to prevent diseases and to live a complete healthy life. The unique advantage is that we advise an integrated life style and dietary regimen which is based on Ayurveda and modern science.

# • Awareness creation regarding AYUSH Systems of medicines in general and / or any system of medicine in particular:

As the campus has an Ayurveda college recognized by Ministry of AYUSH, the institution serves as an excellent centre for creation of awareness regarding AYUSH system of medicines.

Panchakarma, Suvarnaprashan, Garbhasanskar and other services are offered regularly to the community.

Research projects are carried as per priority areas of AYUSH system.

#### • Complementary and alternative medicine:

The campus of Bharati University in Dhankawadi has courses on **Ayurveda** and **Homeopathy**.

In addition to these courses, complementary and alternative systems of medicine like, Physiotherapy, Nursing, Yoga and Naturopathy are also made available within the campus for those patients who seek alternative health care measures.

#### Pharmaco economic evaluation in drug utilization.

The pharmacovigilance committee conducts evaluation of usage of drugs.

Department of Pharmacology conducts regular lectures for general practitionersn rational, ethical and other aspects of drug utilization. Some of the lectures conducted are as follows-

In addition the hospital has an in house pharmacy store. The drugs are made available to patients at a reasonable cost.

The Ayurveda pharmacy prepares herbal, herbo- mineral, drugs as per the formulas of ancient Ayurveda texts for various diseases as per good manufacturing practices. Standardization of these drugs is carried out as per the Ayurveda pharmacopeia. These formulations are utilized for hospital OPD and IPD patients. These indigenously prepared medicines prove to be highly effective and cost effective.

 Participation in national programs like Family Welfare, Mother and Child Welfare, Population Control, Immunization, HIVAIDS, Blindness control, Malaria, Tuberculosis, School Health, anti-tobacco campaigns, oral health care, etc.:

The health institutes participate in all the national health programmes National Health programmes formulated by the Government are based on the health scenario of the country. The institution believes in contributing to National health.

The various departments implement national programmes like National Programme for Control of Blindness, RCH Programme, Family Planning Programme, RNTCP, NACP, National Immunization programme etc.

Every year school health check up is also done by the institutions.

In 2014 under Sarva Shiksha Abhiyan 3665 children were screened by institutes at 42 schools at Pune and those needing further management were referred to Bharati Hospital.

All the departments of the Ayurveda college especially Kaumarbhritya, Kayachikitsa, Shalakya, Strirog & prasuti, Swasthvritta are involved in National Programmes such as family welfare, mother and child welfare, population control (imparting education about various methods of contraception and providing information on choices for contraception), Immunization, DOT centre, etc.

## • Promotion of mental health and prevention of substance abuse: Sound Mind in Sound Body is the basis of good health.

The WHO meaning of health also incorporates mental health. The institute along with the department of Psychiatry conducts various programmes on mental health issues and drug abuse. The department uses the opportunity of special occasions like Autism Awareness Day (April 7), Suicide Prevention Day (September 10), Alzheimer's Day (September 21) and World Mental Health Day (October 10) to increase awareness of mental illness and its management through health education and exhibitions, video clips etc.

The students are also made aware about the harm caused by substance abuse. Various days are celebrated to increase awareness amongst the students.

Child Development and Guidance Clinic manned by psychiatrists, developmental pediatrician and clinical psychologists is another speciality area, jointly managed by the departments of Pediatrics and Psychiatry. This department is involved in diagnosis of scholastic problems and other issues in childhood.

Swasthavritta department plays a major role in promotion of mental health and prevention of substance abuse by promoting Yoga & meditation.

Department of Agadtantra provides de-addiction services and department of Panchkarma takes care of mental health by special Ayurveda treatment like Shirodhara, Shirobasti etc.

#### • Adoption of population in the geographical area for total health care:

The institute has UHTC at Sadashiv Peth which caters to about 60000 population. RHTC at Lavale catering around 45000 populations scattered in 10 villages. The institute also has centres at Nasrapur and Shirval.

In addition the institute has adopted three PHCs at Pasli, Karanjwane and Khadkwasla for providing specialized care in Medicine, Pediatrics and Obstetrics& Gynecology. Apart from PHC other rural areas where health care is provided are Shindewadi-Bhor, Kasurde-Bhor, Bhivari-Puranadar, Kirkitwadi-haveli, Gujarwadi-haveli

Rural health center Turchi Phata which is attached with the Bharati Hospital and Sangalwadi PHC for (Urban) which is attached to the college.

The urban slums adopted for health care are Taljai vasahat, Padmavati, Bibvewadi, Market yard and Dandekar Bridge slum. Sukhsagar Nagar Nivara

Society, Dhankawadi, Telco Colony, Dattanagar, Ambegaon Pathar Parvati Gaon etc.

#### • Research or extension work to reach out to marginalized populations:

Bharati Hospital is 'A' grade recognized hospital for Rajiv Gandhi Jeevandayee Arogya Yojana for free treatment of many disease conditions for the yellow and orange ration card holders.

Health check-up of orphans are carried out and required medicines, Panchkarma treatment, other procedures are provided to the needy free of cost.

# 3.6.12 Do the faculty members participate in community health awareness programs? If yes, give details.

In the last four years, more than thousand health camps and outreach activities have been conducted by the institutes and hospitals. The faculty as well as undergraduate and postgraduate students participates in these activities. The faculty also conducts health awareness lectures on various health issues at schools, slums and rural areas. All faculty actively participate in health awareness programmes organized by NGOs like Rotary club, Lion's club etc. and in annual NSS camp.

Various national health days are celebrated in the hospital, health centres and community by the faculty through display of posters and banners to create awareness amongst the public. The faculty also creates health awareness by contributing newspaper articles, radio talks or at lectures in old age homes, schools etc.

# 3.6.13 How does the institution align itself and participate in National program for prevention and control of diseases?

The institution is always working towards the achievement of national health goals and is at the forefront of implementing the National Health Programmes. The institutes have made all efforts in realizing the goals of NHM.

The National Immunization schedule is one such programme that is implemented not only at Bharati Hospitals but also at UHTC, RHTC.

Safe Motherhood is another programme that is implemented by the Institute and Hospital. The Department of Obstetrics and Gynecology conducts various programmes like- Janani SurakshaYojana, ICTC (National AIDS Control Programme) etc.

Reproductive and Child Health is another programme in which the institution is contributing.

Department of Community Medicine and Pulmonary Medicine work together in implementation of RNTCP and DOTS.

Department of Ophthalmology has been implementing the National Programme for Control of Blindness. They conduct eye checkup camps twice a week in various parts of the city, in slum areas, and at RHTC and UHTC as part of outreach activity. Under the District Blindness Control Programme patients with cataract, glaucoma, diabetic retinopathy, congenital cataract and pediatric blindness are given free treatment.

Department of ENT and Audiology & Speech Language Pathology are also involved in National Programme for Control of Deafness.

#### 3.7 Collaborations

- 3.7.5 Give details of the collaborative activities of the institution with the following:
  - Local bodies/ community
  - Stategovernment/ Central government/ NGOs
  - National bodies
  - International agencies
  - Health Care Industry Biomedical, Pharmaceutical, Herbal, Clinical Research Organization (CRO)
  - Service Sector
  - Any other (specify)

#### Local bodies/ community:

- o The hospital has a tie up with Pune Municipal Corporation for treatment of poor patients under the Rajiv Gandhi Health Scheme.
- Bharati Hospital conducts many school health camps in the city and in Pune district, for the schools under ZP.
- Health check-up at Old age homes
- MoU has been signed between Municipal Corporation and the institution for the functioning of Urban Health Centre, Sangli
- ° The hospital has an informal collaboration with Rotract club for conducting various health related camps.
- Regular health education activity, school health checkups, Medical camps, awareness programme, Blood donation camps, de- addiction programme are organized by college in collaboration with local leaders and community groups.

For providing health care services to community people through home visiting, conducting health camps, School Health programme, celebrations of health days, cleaning of the villages through NSS

#### • State government / Central government /NGOs: Maharashtra Government -

- ° Preparation of Standard Treatment Protocol (STP).
- o The department of Community Medicine also conducted a CME for Medical Officers of Tribal PHCs of Maharashtra in collaboration with NHM, Directorate of Health, Government of Maharashtra.
- Collaboration with Pune Municipal Corporation for Peripheral OPD at Chavan Nagar, Pune
- ° Compulsory rotatory internship training of students involves state government- Primary health centre and rural hospital.
- The ART centre and DOT centre in the hospital in collaboration with State Government.
- For Pulse- Polio Immunization, IMNCI and NRP Training programmes
- NGOs –The Institution is having collaboration with various NGO's like Rotary Club, Lions Club for organizing various activities like health camps, health educational activities etc. Also many schools in and around Pune have tie up for screening and treatment camps by Pediatric Dentistry department.

#### National bodies:

- The institution is having collaboration with national Institutes like NIV, NARI and ICMR for various research activities.
- ° Research projects are carried out in collaboration with Ministry of AYUSH, Central council of Research in Ayurveda and Siddha, National Medicinal plants board, DST etc.
- Collaboration with AYUSH, New Delhi.
- Participation in National Integration Camp, Conducting workshops and seminars on health issues, conducting sports and cultural activities for students and faculty members, Presenting research papers, Publish NRSI Journal.

#### • International agencies:

- Department of Pediatrics had conducted a research project in collaboration with WHO for introduction of IPV in National Immunization Schedule.
- Operatment of Community Medicine is doing research in collaboration with Bill & Melinda Gates Foundation & INCLEN trust international, New Delhi.
- College has established collaboration with foreign institutes for short term Ayurveda courses.

# • Health Care Industry – Biomedical, Pharmaceutical, Herbal, Clinical Research Organization (CRO):

The Pediatrics Clinical Research Unit is having collaboration with many multinational pharma companies and organizations for working on various clinical, vaccine trials.

Biomedical, Pharmaceutical, Herbal, Clinical Research Organization (CRO) tie up with AyurvedaMedical College for research projects on herbal products.

College has established collaboration with pharma industry for drug trial. Total 5 clinical trials are ongoing.

#### • Service sector:

Bharati Hospital is recognized as a panel hospital for various agencies. College provides preventive, curative, rehabilitative, palliative care through hospital activities and health care services to the employees of various service sectors.

- Aditya Hospital, Pimpri
- ° ICR, Pune Branch
- Pune Adventist Hospital
- o For providing clinical experience, Nursing College posts their students to following hospitals and centers:
- Ruby Hall Clinic and Research center— Cardio-thoracic Nursing Experience
- Sonawane maternity Hospital, Kamla Nehru Hospital and YCM Hospital –
   Obstetrical and Gynecological Nursing experience
- ° Chaitnya Hospital &Nityanand Hospital Mental Health Nursing Experience
- ° NIMHANS, Bangalore Mental Health Nursing Experience
- Primary Health Centre Nasrapur & Mutha Community Health Nursing Experience
- Padmavati, Dhanakwadi, Bibvewadi and Sukhsagar Nagar Clinic -Urban
   Public Health Centre Community Health Nursing Experience

### • Any other (specify):

Institution has collaboration with many organizations for research activities

- Tata Memorial Hospital, Mumbai for oral cancer training.
- Meenakshi Ammal Craniofacial Centre, Chennai and Sushrausha Hospital Mumbai for training in cleft lip.
- ° Training in 'Microsurgical techniques' at the Johnson and Johnson Institute Mumbai.
- ° IRSHA (Interactive Research School for Health Affairs) Pune.
- ° Pune College of Pharmacy for research purpose.

### Criterion – III: Research, Consultancy and Extension

- o Institute of Biotechnology, Bharati Vidyapeeth Deemed University for research purpose.
- ° Dr. D. Y. Patil Dental College and Hospital, Pimpri for utilizing the library facility.
- ° Rotary Club of Khadaki, Pune for free treatment to the economically challenged students from various schools of Pune.
- Young India for free Dental check-up Camp in their adopted schools and also impart necessary Dental treatment to needy individuals.
- ° Dr. A. B. Shetty Institute of Dental Sciences, Mangalore for training in cleft lip and cleft palate management.
- Savita Dental College and Hospital, Chennai for training in cleft lip and cleft palate management
- Janaseva Foundation, a public charitable trust to run peripheral Dental Clinic at Ambi, Ranawadi, Panshet.
- ° GSR Cleft & Craniofacial Institute Hyderabad.
- Rickshaw chalak Health scheme.
- Peripheral OPD's involving local Youth clubs and local organisations.
- Parvati Cleanliness drive through NSS
- ° Collaboration with Dilasa (Institute for Mentally challenged children)
- Senior citizens health camps.

# 3.7.6 Give details of the activities of the institution under public-private partnership.

- The Bharati Hospital is running Rajiv Gandhi Jeevandayee Arogya Yojana which is the best example of public private partnership. The hospital has been awared A1 grade in recent inspection. This is a scheme of Government of Maharashtra in order to improve Medical access facility for both Below Poverty Line (BPL Yellow card holders) and Above Poverty Line (APL-orange card holders) families. This in turn will enhance the quality of Medical care to BPL and APL families. The scheme entails around 971 surgeries/therapies/procedures along with 121 follow up packages in 30 identified specialized categories. Bharati Hospital provides these facilities free of cost to the beneficiaries.
- Adoption of three PHCs at Pasli, Karanjwane and Khadkwasla for providing specialized services is another activity run under PPP. The institute has adopted these PHCs for providing specialized care in Medicine, Pediatrics and Obstetrics &Gynaecology. At these PHCs three specialists go on a fixed day of month to provide specialist care.
- In Sangli, PHC at a nearby adopted village Turchi Phata which is attached with the Bharati Hospital and Sangalwadi PHC for (Urban) which is attached to the college

### Criterion – III: Research, Consultancy and Extension

- Collaboration is established with the Janaseva foundation and Primary and Secondary Schools for routine health check-up of the elderly person and students.
- Extension services by expert faculty in investigation of Epidemic in nearby villages with Public health sectors whenever there is an outbreak of diseases.
- Joint research projects are being implemented with pharma industries.
- Many of the research projects are undertaken in collaboration with external facilities like NIV (National Institute of Virology), NARI (National AIDS Research Institute)
- Adoption of schools for screening and treatment camps
- Conducting camps at various villages for the needy.
- Imparting free screening and treatment at our Institute.

### CRITERION - IV: INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 Physical Facilities

# 4.1.6 What measures does the institution take to ensure campus safety and security?

Campus has access controlled main gate with security personnel monitoring it 24 hours. For the campus safety and security, there is an active surveillance by means of extensive CCTV network vigilance monitoring and 24 hours of security guard services throughout the campus. CCTV cameras have also been installed in institutes.

Vehicle access is restricted only in parking areas. No vehicles are allowed to run on the internal roads. Identity cards are provided to all working personnel and students in the campus. To ensure overall safety, there is a compound wall constructed around the entire campus. The main entrance to the colleges and hospitals is guarded by security guards with restricted entry.

All the buildings are provided with the state of the art fire extinguishing system, alarms and fire-extinguishers. Work shop on Disaster Management is organized every year in Dental College.

Bharati Vidyapeeth Police Station is located in vicinity of the campus.

Eco friendly, lush green, vehicle free campus of colleges and hospitals assure the safe and secured healthy environment.

All the six Health Institutes have made provision for insurance policy.

### **4.1.7** Facility of Animal House

- Is animal house maintained as per CPCSEA guidelines?
- Whether records of animal house are maintained for learning and research activities?
- Does the animal house have approval for breeding and selling experimental animals as per CPCSEA guidelines?
- The animal house is being maintained as per CPCSEA guidelines.
- The records of animal house are maintained for the purpose of learning and research activities.
- The animal house has necessary approval from CPCSEA vide Registration no. 258/ CPCSEA.

- 4.1.8 Provide the following details on the use of laboratories / museums as learning resources:
  - Number
  - Maintenance and up-gradation
  - Descriptive catalogues in museums
  - Usage of the above by the UG/ PG students.

### Pune campus

Medical College: Total 22 laboratories / museums. 1 in each department.

Dental College: Total 32 spacious, well-equipped laboratories like Phantom head Laboratory Ceramic Laboratory, Immunohistochemistry Laboratory.

College of Ayurveda: Total 5 well-equipped, spacious and ventilated laboratories (KriyaSharir, Rognidan, Rasashastra and Bhaishjyakalpan, Dravyagunvigyan and Research & quality control laboratory for postgraduate students). RachanaSharir, Dravyaguna, Rasashastra, Agadtantra, Nidan and Swasthavritta are significant size museums.

Homeopathy College: laboratories – 04, Museum - 02

College of Nursing: Total 4 laboratories (Foundation Laboratory, Community Health Laboratory, Nutritional Laboratory, Computer Laboratory). Museum is of 1500 sq. ft containing all specialties models/charts etc.

IRSHA- 05 laboratories.

### Sangli Campus:

Medical College -A total of 38 laboratories and 17 Museums in the respective departments facilitate the learning process

Dental College -9 laboratories and 3-Museum

Nursing College -5 laboratories and 1 museum

### Mumbai Campus-

Dental College: 16 laboratories and 17 Museums

**Maintenance and up-gradation is** done by respective departments. Also, there is a separate Maintenance department for maintenance and up-gradation. Maintenance of sophisticated equipments is done through annual maintenance contracts.

**Descriptive catalogues in museums-** Yes. Each and every department has descriptive catalogues which portray a required information of specific model, specimen etc. There is one museum catalogue available for every 15 students.

**Usage of the above by the UG/PG students** –All the laboratories are equipped with the latest instruments and equipment; these laboratories provide excellent practical training to U.G., P.G. and PhD students. The museums

provide detailed description of various structures thus providing an insight of human body. All these facilities are accessible and utilized by UG/ PG students as well as faculty on regular basis.

Working in Ceramic Laboratory, Immunohistochemistry Laboratory gives Dental students exposure to advanced technology. Before treating patients Dental operative procedures are taught on Phantom head in Phantom head Laboratory which is a simulation procedure. Carving on wax block in Dental Anatomy Laboratory helps to develop neuromuscular control in the students' hand which is essential for tactile sensation during Dental treatment. Dental students make various models and such models with innovative ideas are displayed in the museums.

SIM man in Medical College is used to create hypothetical situations for training of students.

### 4.1.9 Dentistry

- Dental chairs in clinic- speciality wise
- Total dental chairs
- Schedule of chair side teaching in clinics- speciality wise
- Number of procedures in clinics per month and year
- Mobile dental care unit
- Facilities for dental and maxillofacial procedures
- Dental laboratories

There are a total of 981 dental chairs in the three dental colleges together. The speciuality wise and college wise details are as follows.

Speciality	Dental College, Pune	Dental College, Sangli	Dental College, Navi Mumbai
Prosthodontics	65	47	47
Conservative Dentistry	65	46	46
Pedodontics	53	32	32
Oral Medicine and Radiology	28	14	14
Oral Surgery	65	46	46
Public Health Dentistry	22	16	16
Oral Pathology and Microbiology	06	03	03
Periodontology	63	45	45

Speciality	Dental College, Pune	Dental College, Sangli	Dental College, Navi Mumbai
Orthodontics	58	29	29
Total Dental chairs	425	278	278
Grand Total		981	

Schedule of chair side teaching in clinics – speciality wise:

Specialization	Schdule of Chair side teaching in Clinics
Prosthodontics	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Conservative Dentistry	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Pedodontics	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Oral Medicine and Radiology	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday)

Specialization	Schdule of Chair side teaching in Clinics
	Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Oral Surgery	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Community Dentistry	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Oral Pathology and Microbiology	Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Periodontology	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday) Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm (Saturday)
Orthodontics	III BDS Students: 1.30 pm to 4.30 pm (Monday to Friday) IV BDS Students: 8.30 am to 12.30 pm (Monday to Saturday) Interns: 8.30 am to 4.30 pm (Monday to Friday)

Specialization	Schdule of Chair side teaching in Clinics		
	and 8.30 am to 12.30 pm (Saturday)		
	Post graduate Students: 8.30 am to 4.30 pm (Monday to Friday) and 8.30 am to 12.30 pm		
	(Monday to Friday) and 8.30 am to 12.30 pm (Saturday)		

Number of procedures in clinics per month and year: **Annexure-I** 

Mobile Dental care unit- Sangli Institution has mobile Dental care unit which is used for screening in Dental checkup camps conducted in the rural areas to create Dental care awareness.

### Facilities for Dental and maxillofacial procedures:

Speciality	Procedures
Prosthodontics	Full and partial denture fabrication, crown and bridge preparation, Full mouth rehabilitation, Maxillofacial prosthesis, Dental Implants, Cast partial denture fabrication.
Conservative Dentistry	Restorations, Root canal treatment, Esthetic Dentistry, Post & core, Apical Surgeries, Occlusal Rehabilitation.
Pedodontics	Fluoride application, Restorations, Root Canal Treatment, Pulpotomy, Pulpectomy, Space maintainer, Habit Breaking Appliances
Oral Medicine and Radiology	Intra-oral & Extra-oral radiograph making and interpretation, vital staining, biopsies, management of various oral lesions, patient counseling for tissue abuse habit
Oral Surgery	Extractions, minor oral surgical procedures, major maxillofacial surgeries.
Community Dentistry	Oral Health Indices, Fluoride application, Oral Health Education.
Oral Pathology and Microbiology	Biopsies, diagnosis and management of various oral lesions
Periodontology	Scaling & Polishing, Oral Prophylaxis, Gingivectomy, Frenectomy, Crown Lengthening, Ridge Augmentation Procedure, Periodontal Flap Surgery, Mucogingival Surgery, Bone Graft Procedures, Guided Tissue Regeneration, Guided

Speciality	Procedures	
	Bone Regeneration, Dental Implants	
Orthodontics	Myofunctional, Fixed and removable appliances, Orthognathic Surgery	

Operation facility with full time anesthesiologist. Separate section for minor oral surgical procedures, Endodontic surgery and Dental implants are available in Department of Oral Surgery, Periodontology, Prosthodontics, and Conservative Dentistry. Major maxillofacial cases are operated in attached Bharati Hospital.

### **Details of Dental Laboratories:**

Laboratories	Dental College, Pune	Dental College, Sangli	Dental College, Navi Mumbai
Clinical Laboratories	8	8	9
Postgraduate	9	6	7
OralPathology	1	1	1
Dental Anatomy	1	1	1
Prosthodontics Preclinical	1	1	1
Prosthodontics Plaster	1	1	1
Conservative Preclinical	1	1	1
Conservative Plaster	1	1	1
Orthodontics Preclinical	2	1	1
Ceramic	2	1	1
Phantom head	2	1	1
Immunohistochemistry	1	Medical College	0
Histopathology	1	1	1
Microbiology	1	Medical College	1

### 4.1.11 Yoga and Naturopathy

- Demonstration hall with teaching facility to cater to the needs of the students
- Diet service Management Department
- Yoga cum multipurpose hall for meditation and prayer
- Solarium compatible for multimedi presentations
- Mud Storage unit
- Outdoor facilities Walking track with reflxology segment

- Swimming pool
- Naturopathy blocks

The following facilities mentioned above are available for Yoga and Naturopathy.

- Demonstration hall with teaching facility to cater to the needs of the students.
- Diet Service Management Department- Ayurveda and Bharati Hospital Sangli and Pune.
- Yoga cum multipurpose hall for meditation and prayer: Available.
- Dental College also has Yoga and Meditation Hall of 2500 sq. ft. with PA facility and seating capacity of 200 persons for rejuvenation of students and staff. International Yoga Day is celebrated in all institutes on 21<sup>st</sup> June.
- A spacious meditation hall is available in Ayurveda Hospital with seating capacity of 50 persons.
- Solarium compatible for multimedia presentation
- Mud Storage Unit-Yes
- Outdoor Facilities Walking track with reflexology segment.
- Swimming Pool- No
- Naturopathy blocks: Available in Ayurveda hospital having special features like hydrotherapy, mud therapy, magnet therapy etc. These facilities are available under the department of Swasthavritta.

### 4.1.12 Homeopathy

- Museum and demonstration room (Homoeopathic Pharmacy Laboratory, Pathology Laboratory, Community Medicine, Homoeopathic Materia Medica, Organon of Medicine including History of Medicine)
- Repertory with Computer Laboratory and Demonstration Room
- Yes, Museums and demonstration rooms are available in the college of Homeopathy. There are 2 Museums and 4 Laboratories. As per CCH Norms of 2012 course PG Pharmacy Laboratory has been updated and as per 2015 degree course phase-wise development plan is proposed.
- Yes, requisite number of computers is made available for UG and PG scholars with Internet services.

### **4.1.13 Nursing**

- Nursing Foundation Laboratory
- Medical Surgical Laboratory
- Community Health Nursing Laboratory
- Maternal and Child Health Laboratory
- Nutrition Laboratory
- Pre-clinical Laboratories

### • Specimens, Models and Mannequins

- Nursing Foundation Laboratory: Yes, the colleges have CPR foreign mannequins and regular mannequins. It is well equipped with adequate linen, articles and supplies to carry basic procedures as per the curriculum.
- **Medical Surgical Laboratory:** It is located in the Nursing Foundation Laboratory separately as critical care area.
- Community Health Nursing Laboratory: Available. Various charts related national health programmes, Primary health centre staffing, health care delivery and urban and rural area map are displayed.
- Maternal and Child Health Laboratory: Maternal side has antenatal, prenatal and post natal set up with female pelvis, foetal skull, delivery model, a new born baby, labor bed with birth simulator, delivery tray, suture tray and emergency resuscitation set up. Models on episiotomy suturing, self breast examination are available. Neonatal resuscitation, neonatal assessment mannequins are available.
- **Nutrition Laboratory:** The lab is equipped with centralized gas stove facility and also two spare cylinders. Required utensils are available in adequate number to carry out cookery demonstration. Charts and posters depicting the calorie requirement, nutrients and RDA are displayed.
- Specimens, Models and Mannequins: various models are available for the students to study.
- Maintenance and up-gradation: Maintenance departments are established and faculty in charge does the follow up. Inventory registers are maintained for indent of various equipment's, supplies and materials. Each lab is upgraded as per Indian nursing council norms.

### 4.1.14 Ayurveda

- Herbal Gardens
- Museum Herbarium
- Panchakarma Facility
- Eye Exercises Clinic
- Kshara Sutra and Agni Karma Setup
- Ayurveda Pharmacy

### • Herbal Gardens:

The herbal garden functions as an educational display of medicinal plants, herbs and species and also as a conservatory source of standard specimens. The herbal garden is an integral part of the academic ambience. The college has developed and maintained well planned, unique herbal garden in 1.5 acres with a greenhouse installed which includes 288 species of flora, including several extinct and rare. More than 1100 medicinal plants are available in the

campus to the students for morphological identification. Some plants are also used routinely for the preparation of medicine by the college pharmacy.

### • Museum Herbarium:

Museums are essential tool for Teaching and Learning for faculty and students. College has well developed exclusive museums set up with charts, models and specimens in almost all departments. For example,

- RachanaSharir
- Agadtantraevamvidhivaidyak
- Dravyagunvigyan
- ° Swasthavritta
- ° Rasa shastraevambhaishajyakalpana
- Nidan
- ° Shalva
- ° Panchakarma

Mummified bodies, Electronic model of MarmaVigyan, Skeletons, Organ specimens, Poisonous drug specimens; lethal weapons; Models of Asphyxia and Unnatural Death are prized possession of the museums. Specially prepared charts, models of Water Purification Centre, Sewage Disposal and Sanitation, Fibre models of Yantra, Precious Gem Stones are distinctive features of these museums.

500 Crude drugs including rare, self-collected (by Faculty & students) samples from various parts of India are displayed in well-designed showcases.

A few clinical departments too have precise models that are used to explain complex structures of human body, procedures

U.G. and P.G. students all the time avail of these resources for easy learning and understanding of various Ayurveda topics.

### • Herbarium

Dravyaguna department has wide range of Herbarium specimens for easy identification and authentication of medicinal plants which is useful for teaching and learning for UG/PG student's .There are 1000 specimens collected from various parts of India and same are well preserved in the department.

### • Panchakarma Facility:

Our Panchakarma department is the specialty of Ayurveda. It provides variety of specialized therapies like, abhyanga, swedana, vamana karma, virechana karma, basti karma, raktamokshana, nasya karma, shirodhara etc. to the community.

Execution of all these therapy is due to the ample of space provided with all sophisticated equipment, instruments are made available with the department (see table).

Highly qualified, efficient, well trained, patient friendly faculty and support staff is the backbone of this department.

### • Eye Exercises Clinic:

Name of the Equipment/ Infrastructure	Quantity	Use
NetraTarpan goggles	2	NetraTarpan
Eye wash cups	2	For Netratarpan and eye wash

In the Netraroga OPD of Shalakya Tantra Dept, we prescribe and advice specific eye exercises to related eye disorders such as Tratak in myopia, Occlusion therapy for Amblyopia and Ossilatory Eye movements for strabismus patients. We also offer a proper training of eye exercises to the related patients.

### • Kshara Sutra and Agni Karma Setup:

Name of the Equipment	Quantity	Use
Eshani (Probe)	02	Identify the direction of sinus tract
Agnikarmashalaka	04	For Agnikarma in various diseases
Ksharsutra cabinet	01	Prepare ksharsutra

### • Ayurveda Pharmacy:

The Area of the Pharmacy is 200 sq.mtr. [2222 sq. ft.] as per CCIM norms. The in house Pharmacy having expert and efficient personnel and state of the art machinery manufactures approximately 120 Ayurveda medicine preparations. Specialized technical dosage forms of metallic and mineral medicines like 'Bhasma', 'Rasa-Sindoor', 'Rasapottali' are manufactured as per traditional methods.

The Pharmacy also has a 'Quality Assurance Laboratory ' equipped with the basic analytical instruments for the standardization of the finished products which are usually supplied to our Hospital.

The drug of herbal origin like medicated oil and fermented products are also manufactured.

Pharmacy is divided into the following sections keeping in mind GMP requirements.

- 1) Raw Material Storage
- 2) Choorna Section,
- 3) Kwatha Section
- 4) Bhavana Section
- 5) Capsule filling Section
- 6) Pill Making Section
- 7) Finished Product Storage Section
- 8) Bhasma Section
- 9) Kupipakwa Rasayan Section
- 10) Packaging Section

All the other accessory facilities like, 24 hr. ample water supply, uninterrupted electricity supply, required medicines etc. are available.

# 4.1.15 Does the institution have the following facilities? If so, indicate its special features, if any.

- Meditation Hall
- Naturopathy blocks

### • Meditation Hall:

Dental College has Yoga and Meditation Hall of 2500 sq. ft. with PA facility and seating capacity of 200 persons. A meditation hall is available in Ayurveda Hospital with seating capacity of 50 persons.

### • Naturopathy blocks:

Available in Ayurveda hospital with special features like hydrotherapy, mud therapy, magnet therapy etc.

# 4.1.16 Provide details of sophisticated equipments procured during the last four years.

The details are given in the **Annexure-II**.

### 4.2 Clinical Learning Resources

### 4.2.1 Teaching Hospitals

#### **Year of Establishment:**

Medical College, Pune - 1989 Medical College, Sangli - 2006 Dental College, Pune - 1989 Dental College, Mumbai - 2004 Dental College, Sangli - 2006 College of Ayurveda - 1990 Homeopathy College - 1990 College of Nursing, Pune - 1992 College of Nursing, Mumbai - 2009

### **Hospital institution distance:**

All hospitals are less than 500 meters from the respective colleges. Both hospitals are located within campus. Dental Hospitals are located in the colleges. College of Nursing is located just next to Bharati Hospital.

### Whether owned by the college or affiliated to any other institution?

All the hospitals are constituent units of Bharati Vidyapeeth Deemed University, Pune.

Are the teaching hospitals and laboratories accredited by NABH, NABL or any other national or international accrediting agency?

**Medical College & Hospital, Pune** has cleared primary step (entry level) of NABH accreditation. Also NABL accreditation is under process.

**Number of beds**: The numbers of beds are as per the recommendations of respective councils.

Number of Beds	Medical College, Sangli	Medical College Pune	College of Ayurveda	College of Homeopathy	College of Nursing Navi Mumbai <sup>##</sup>
Number of beds	750	852	200	55	300
Number of specialty services	11.	15	10	-	12
Number of super-	02	05	Nil	Nil	04

Number of Beds	Medical College, Sangli	Medical College Pune	College of Ayurveda	College of Homeopathy	College of Nursing Navi Mumbai <sup>##</sup>
specialty services					
Number of beds in ICU / ICCU / PICU / NICU, etc.	ICU- 10 Renal ICU - 05 R ICU - 05 SICU - 05 ObGyn - 05 ICCU - 10 RICU - 05 NICU- 05 Dialysis- 14 PICU- 10	ICU-35 NICU- 30 Dialysis -08 PICU- 18	ICU-10 NICU-05	ICU- Nil NICU-Nil Dialysis- Nil PICU- Nil	ICU-15 NICU- 16+17(MCU) Dialysis-8 PICU-NA
Number of operation theatres	14	13		01	08 (INCLUDING MINOR OT)
Number of Diagnosti c Service Departme nts	4	04	_	3	03
Clinical Laborator ies	1	01	-	01	01

### ## Affiliated with NMMC Hospital, Navi Mumbai

Broad speciality and superspeciality services are available.

Service areas viz. laundry, kitchen, CSSD, Backup power supply, AC plant, Manifold Rooms, pharmacy services:

The above services are available.

### **Blood Bank services:**

Yes, with both Medical Colleges. Other health institutes use Blood Bank services of Bharati Hospital located in the campus. The blood banks are FDA approved.

### **Ambulance services:**

All the institutes have their own ambulances. The number varies according to the need. Medical college Pune has 4 while Medical College Sangli has 3, Homeopathycollege has one. There are specialized ambulances like cardiac and neonatal.

### **Hospital Pharmacy services:**

Available. Infact, at Bharati Hospital, the Pharmacy is open for 24 hours a day, 7 days a week.

### **Drug poison information service:**

Yes, with Medical College. Bharati Vidyapeeth Poona college of Pharmacy has a centre that gives information regarding the Drugs and poison. This information is provided by the treating physicians.

### Pharmaco-vigilance:

Pharmacology department of Medical Colleges have established Pharmacovigilance cell. It keeps a vigil on the untoward or harmful effects of drugs thus ensuring adherence to Medical ethics in Dental and Ayurveda Institutes. Drugs used in the hospital are monitored by this committee. Interns and PG students are made aware of the safety of drugs. College of Ayurveda has been also actively working as Peripheral Pharmaco-vigillance Centre (PPC) established in September 2010 under the instruction of Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

### Mortuary, cold storage facility:

Centralized mortuary facility with 4 cabinets is available in Bharati Hospital, Pune.

**Does the teaching hospital display the services provided free of cost?** Yes.

# What is the mechanism for effective redressal of complaints made by patients?

Complaint/ Suggestion Boxes are kept at various places in the hospital. Complaints are sorted out and analyzed thoroughly. Effective redressal is done by committee comprising of Medical Director, Dy. Medical Director, and HOD of respective departments with inputs from Medical social worker and patient. Patient welfare committee has been set up to look after patient's grievances in Dental College. Patient can also directly approach the Principal, HOD or In-charge of Dental College at any given time for their grievances for effective redressal.

### Give four years statistics of inpatient and outpatient services provided:

The relevant statistics is given in the Annexure-III

### Does the hospital display charges levied for the paid services?

Yes

# Are the names of the faculty and their field of specialization displayed prominently in the hospital?

Yes, it is displayed outside the OPD in the respective departments.

# Is pictorial representation of the various areas of the hospital displayed in a manner to be understood by illiterate patients?

Yes

### Is there a prominent display of ante-natal, mother and child health care facilities?

Yes

# How does the hospital ensure dissemination of factual information regarding rights, responsibilities and the health care costs to patient and the relatives/attendants?

Hospitals ensure dissemination of factual information regarding rights, responsibilities and the health care costs to patient and the relatives/attendants at the time of admission process & through informed consent. This information is communicated by office bearers at the registration counter, by the concerned doctor, Medical Social Worker and Accounts department. The patient is explained in detail about various treatment procedures & cost factor if any. Information is also revealed in form of display units. It is also made available on the request of the patient or attendant or relatives of the patient in the office of the deputy superintendent.

### How does the hospital ensure that proper informed consent is obtained?

Patient is duly informed about the procedure in his or her mother tongue and the written consent is obtained in English/Hindi/Marathi in the consent form. Regular counseling sessions are held with the patient/relatives. If patient is minor, then the parents are informed and the consent is duly obtained. Patient's proper informed consent is also taken from those who are willing to participate in the Research project.

# Does the hospital have well-defined policies for prevention of hospital-acquired infections?

Yes. It is monitored by hospital infection control committee. It observes all the necessary activities to control hospital acquired infections. Sterilization, autoclave, Fumigation of OT is done before any operative. All operation

theatres are routinely and regularly fumigated along with wards, ICU, NICU, labour room etc. All the surgical as well as non-surgical instruments are sterilized by means of various sterilizing methods which includes autoclaving and chemical sterilization. All the physicians are instructed judicial use of antibiotics to avoid resistance. Hospital always takes prompt steps to isolate infected and compromised immunity cases. All the staff involved in the procedure wears sterilized gloves, mouth mask, and protective eyewear. Moreover cleanliness is strictly observed and staff is adequately trained for personal and patients care. Staff members and students have been regularly vaccinated for Hepatitis B. Hospital also follows strict disposal norms to avoid acquired infection.

# Does the hospital have good clinical practice guidelines and standard operating procedures?

Yes. All the hospitals under Health Science follow clinical practice guidelines and standard operating procedures as per MCI, DCI, INC, CCH, CCIM, etc.

### Does the hospital have effective systems for disposal of bio-hazardous waste?

Yes. All the hospitals under Health Science are registered with respective Municipal Corporations for disposal of bio-Medical waste to prevent any hospital acquired infections. Hospital avail the paid services of agency appointed by the local authority as per guidelines of Maharashtra Pollution Control Board. For this purpose hospital follows colour codes for collection of wastes.

# How does the hospital ensure the safety of the patients, students, doctors and other health care workers especially in emergency department, critical care unit and operation theatres? Are the safety measures displayed in the relevant areas?

Yes, the safety measures are displayed in the relevant areas. All the staff members are well trained regarding self- protection against infection by the method of identification and isolation. Hospital has an insurance policy for all the employees. In addition faculty members are competent to handle medicolegal aspects and they have been instructed to keep in force their own indemnity policy regularly.

The institute ensures the safety of all its patients, students, doctors and other health care workers by adopting the best practices like:

- Full fumigation of the operation theatre one day prior to operative procedure.
- Sterilization of all the instruments and equipment's.
- Availability of emergency medicines for all given emergency circumstances.

- Use of various protective gears like gloves, protective gowns, disinfectant solutions, gum boots etc.
- Availability of Equipment's needed for Safety like PPE, Needle Burner, andRadiation Safety.
- Regular Health check-up
- Vaccination
- Round the clock security services available in the hospital premises.
- Emergency exit available in Hospital to avoid chaos in life-threatening instances.
- Fire fighting system available in the hospital premises
- CCTV surveillance of hospital building for 24 hrs.
- Intercom facility for communication
- Lift is operated by lift attendant.
- Phone numbers are prominently displayed in the lift for emergency situation.
- Speed dial system is made available in most of the hospitals for prompt and effective communication in an emergency. Hospital proximity to the police station situated in the Bharati Vidyapeeth campus adds supplementary benefit in the safety and security of the hospital and its users.

# How are the Casualty services/Accident and Emergency Services organized and effectively managed?

As per the emergency protocols Casualty services/Accident and Emergency Services organized and effectively managed. Casualty and Emergency units function 24 hrs/day. They are located at front of the hospital for easy access. It is handled by Department of Emergency Medicine and supported by other department faculties and PG students round the clock. There is a fleet of ambulances with retrieval services and fully equipped component Blood bank. All MLC cases are informed to the police department immediately.

# Whether the hospital provides patient friendly help-desks at various places:

Yes, there are help-desks at various places in the hospital where a patient can seek any information regarding the treatment. MSW employed in the hospital also help the patients.

### Does the hospital have Medical insurance help desk?

Yes, Medical insurance help desk is available in Hospital. Health scheme facility for all the teaching and non-teaching staff of Bharati Vidyapeeth is also available wherein staff can avail any treatment under this scheme.

### What are the other measures taken to make the hospital patient friendly?

Sign boards and notice boards are displayed in local language as well as English with ward/OPD numbers in the hospital premises for the patients and

other people's ease. There is washroom facility and provision of drinking water on each floor. Layout of the hospital is also prominently displayed.

The hospitals are on the panel of various industries and insurance companies. Hospital is also empaneled for Rajiv Gandhi Health scheme of PMC.

Health camps are organized on regular basis to propagate information regarding services available with the hospital for its best use. Services are made available at concessional rate for needy or free. Hospital MSW play crucial role to make the hospital patient friendly. Doctors and paramedical staff communicate well with the patients and their relatives thus help making the hospital patient friendly. Some beds are reserved along with concession given to the BPL cases.LCD TVs are installed at various locations like OPD waiting areas, OT waiting areas, Registration counters as well as Indoor Ward for the entertainment of patients and relatives. Bunk bed facilities are provided to the relatives near the intensive care units. Canteen facilities and snack & coffee vending machines are made available in the hospital premises.

Toy room and paintings of cartoon characters on the walls in and around Pediatric and Preventive Dentistry Department create the child friendly atmosphere. Dental Hospital provides free consultation to all patients, free treatment to all camp patients, physically challenged patients to make the hospital patient friendly.

Counseling of patients at 'May I Help You' counter near registration window helps in minimizing phobia of dental treatment which in turn makes hospital patient friendly. T.V with D.V.D. player, music player, etc. facility is also available in the waiting room of Dental College patients' entertainment as Dental treatment is time consuming. Centralized air-conditioned Orthodontics clinic is also for patient comfort.

# How does the hospital achieve continuous quality improvement in patient care and safety?

There are periodical audits taken by various committees and department to achieve continuous quality improvement in patient care and safety, It is been supervised by Medical director and nursing matron and social worker and HOD of respective department. Continuous up gradation of knowledge of health care workers on issues of quality and safety through clinical meets and workshops is done at regular intervals. Difficult cases are discussed with subject expert and their guidance is taken into consideration. The patient feedback committee reviews the suggestions given by the patient in feedback form and further actions are implemented.

Patients' redressal mechanism also helps in monitoring & improving grey areas of the hospitals. Asepsis protocol and radiation safety is followed strictly in the hospital. The institute believes in rendering the best quality treatment to its patients by providing the latest material and equipment's. Pharmacovigillance committee takes periodical review. Authentic medicines are made available through hospital medical outlets. 24 hours CCTV vigilance of hospital building, 24 hours security services etc. also help in continuous quality improvement in patient care and safety. In order to take care of patient, healthy food is provided by canteen. Nutrition department also looks after the diet and nutrition aspect of the patient.

## What are the measures available for collecting feedback information from patients and for remedial actions based on such information?

Every patient at time of discharge has to fill up a feedback form, which is collected by Medical social worker then scrutinized by heads of the respective departments and Medical director/superintendent and if required necessary action is taken.

A suggestion box is provided for patient feedback. The information is analyzed by the hospital management committee and appropriate steps are taken accordingly.

# How does the institution ensure uniformity in treatment administered by the therapists?

Standard operating protocols are prepared by each department. These SOPs are followed by everyone to ensure uniformity in treatment administered by the therapists. Orders regarding the line of treatment with appropriate doses is written and duly signed by the unit physicians (therapist) on the case papers and is strictly followed by actual executors like resident doctors, physiotherapists, nurses etc. senior faculty of concerned unit and matron keep vigilance on this system. All concerned personnel are instructed about the same on regular basis and this mandatory rule is emphasized, in written form, in each and every unit. Every doctor follows standard case taking format. This system ensures uniformity in treatment administered by the therapists.

# Does the institution conduct any orientation training program for AYUSH-based para-Medical staff?

Due to the separate hospitals for Ayurveda and Homeopathic which includes the component of yoga and siddha there are very few AYUSH based para-Medical staff in allopathic hospital. Paramedic staff members of College of Nursing are given the orientation training in the beginning on the various treatment modalities available under AYUSH.

# What specific features have been included for clinical learning in the outpatient, bedside, community and other clinical teaching sites?

Case based learning, evidence-based learning, family based interventions, holistic approach are the bases for clinical learning in the OPD, IPD, community and other clinical teaching sites. Group teaching is done on OPD patient in OPD clinics when patient is seen by faculty. Minor surgical procedures are demonstrated in minor OT. In OT there are CCTV rooms in which students can see live operations. In IPD, Bed-side Clinics are taken by senior faculty for undergraduate and postgraduate students. Postgraduate students take cases under guidance of physician. Grand rounds, Journal club, seminars and group discussions are done regularly for clinical learning. Discussions on specific case in form of seminars are organized appropriately. Timetable of clinical training for UG and PG students is prepared in such a way that students are posted in small groups in the clinics. Apart from the regular teaching methods, charts, models & clinical demonstrations are shown to the students in clinical learning.

For community based learning students visit UHTC, RHTC, slums and various PHC's adopted by the institutes.

### 4.3 Library as a Learning Resource

### 4.3.2 Provide details of the following:

- Total area of the library
- Total Seating capacity

The above information for all the 10 institutes in health sciences is given in the following table:

Name of the College	Total area of the Library (in Square Mts.)	Total seating capacity (in Square Mts.)
Medical College, Pune	1032	300
Dental College, Pune	750	250
College of Ayurved	450	104
College of Homeopathy	468	120
College of Nursing, Pune	151	80
Medical college, Sangli	3115	370
Dental College, Sangli	807	250
College of Nursing, Sangli		
Dental College, Navi Mumbai	619	216
College of Nursing, Navi Mumbai	285	150

### 4.4 IT Infrastructure

### 4.4.2 How does the institution maintain and update the following services?

- Hospital Management Information System (HMIS)
- Electronic Medical Records System (EMR)
- Digital diagnostic and imaging systems including PACS

### • Hospital Management Information System (HMIS):

Majority of the health science institutes have HMIS.T his has helped in easy storage and retrieval of data.

### • Electronic Medical Records System (EMR):

Lifeline software developed by Manorama Info Solutions Pvt. Ltd, Kolhapur is used. MRD maintains on line issue/receipt register of files. For IPD data the number of files, to whom the file is issued e.g. Ward/billing/CMO/resident, date of issue, from where the file is received, date of receipt etc. is entered in the computer.

# • Digital diagnostic and imaging systems including PACS (picture archiving and communication system):

Bharati hospital Pune and Sangli have PACS and digital diagnostic facilities.

### 4.5.3 Has the institution insured its equipments and buildings?

Yes, all the health sciences institutes have insured its equipments and buildings. These insurance are executed through the ICICI Lombard Insurance Company.

# Criterion – V Student support & Progression

### CRITERION - V: STUDENT SUPPORT AND PROGRESSION

### 5.1 Student mentoring and Support

### 5.1.4 Does the institution have facilities for psychosocial counseling for students?

Institutional counselling cell exists under the chairmanship of professor and Head, Department of Psychiatry of Medical College. Goal of the committee is to sensitize students regarding importance of positive mental health, stress and stress relief, create awareness, teach life skills and stress management and provide counselling if necessary.

During orientation workshop for fresher, special interaction is held on stress management and time management. Parents of freshers are also encouraged to attend this workshop.

Stress management and soft skill module are discussed during orientation programme for students.

Handouts/ flyers for counselling are put up in hostels, Hospital and College. Individual counselling for undergraduate and post graduate students is done as and when they approach.

The student support cell arranges lectures addressing the psychosocial aspect of the students e.g. lecture by the Art of Living, mind control techniques, periodic sessions, and dealing with death in family or of fellow student.

# 5.1.14 How does the institution provide an enriched academic ambience for advanced learners?

Library facilities, training in research are provided and they are encouraged to participate in State and National level conferences, workshops, quiz, scientific oral and poster presentations.

They are promoted to publish scientific research articles in journals for which workshops are conducted on manuscript writing.

Advanced learners are identified and mentoring of these students to undertake ICMR, AYUSH etc. projects in various Institute is practiced.

For advanced learner's topics on recent developments, complex case scenarios are given for group discussion and seminars. They are also encouraged to prepare innovative teaching material in the form of charts, model, PPT.

### Criterion – V: Student Support and Progression

They are provided Homoeopathic software's, library facilities, reference books, national & international journals, computer with net facilities. Lectures by eminent doctors, clinical sessions, and group discussion are organised.

Workshop on "Simulation in Medical Education" was conducted where actual hands on experience were given on sim-man.

Enriched academic ambience for advanced learners is provided by honouring them with awards for their outstanding achievements.

High achievers are encouraged with peer teaching, assisting the faculties in organizing workshops, conferences, seminars and other co and extracurricular activities.

### 5.1.18 List a few prominent alumni of the institution.

### Medical College, Pune

- Dr. Salil Kulkarni- Music director
- Dr. Sameer Bhate Cardio Vascular Surgeon
- Dr. Aditya Kelkar- Director at National institute of Ophthalmology
- Dr. Sameer Melinkeri- renowned haematologist
- Dr. Vikram Padbidri –Consultant Microbiologist at Jahangir Hospital
- Dr. Ranjit Raje- Plastic Surgeon
- Dr. Lalit Shimpi Gastroenterologist
- Dr. Wahegaonkar Hand Surgeon, Sancheti hospital
- Dr. A. Kothurkar Chief Vascular Surgeon, Ruby Hall clinic, Pune
- Dr. Charuhas Thakar Specialist; Internal Medicine, US
- Mr. Amod Gogate Senior Manager, John and Johnson vision care, India.
- Mr. Abhishek Kapoor Manager, Professionals Affairs, GKB
- Mr. Rao Deshpande Professional services, Reliance Vision Express
- Mr. Abhishek K.J. Professional services, Lawrence and Mayo Optical Chain
- Mr. Rajesh Wadhwa Chairman scientific committee, Indian Optometric Association Visiting Faculty, AIIMS, Delhi

### Medical College, Sangli

- Dr. Ashish Dagar
- Dr. Priyanka Tiwari
- Dr. Sana Sood
- Dr. Rashi Aryan
- Dr. Hanipal Singh
- Dr. Mandar Shaha
- Dr. Sushant Patil

- Dr. Ajinkya Bhandari
- Dr. Sanket Bhosale
- Dr. Abhijeet Dhaibar

### **Dental College, Pune**

- Dr. Nikhilesh Vaid President IOS and EC member of World Orthodontic society and Editor APOS
- Dr. Sujit Pardeshi– National speaker on practice management
- Dr. Manish Bhutada- Researcher in Australia
- Dr. Manish Chitnis- UK accelerator programme Dental concept in India

### Dental College, Sangli

- Dr. Sabina Bhore
- Dr.Arushi Mishra
- Dr Vaibhav Gaikwad
- Dr Nili Keria

### College of Ayurveda

- Vd. Arvind Kadus Agasti Ayurveda Pharmacy, Pune
- Vd. Ajit Kolatkar Nutried Pharmacy, Pune
- Vd. Amit Dave Director- Dave Ayurveda Bhavan, Kokan Ayurvpharma Pvt Ltd (Ayush Cluster, Govt of India
- Vd. Mahesh Sabade Well known practitioner in India as well as abroad.
- Vd. SagarShingare Cricketer-- English county player
- Vd. Raja Shingla Associate professor Department of Panchkarma at Shri Government Ayurveda College Kurukshetra, member of the Technical expert committee of Drug and cosmetic act Government of Haryana.
- Vd. Kirtiraj Jadhav STI through MPSC
- Vd. Syam spa centers in India
- Vd. Ganesh karajkhede working in C-DAC developing software related to Ayurveda.
- Vd. PramodDhumal Project leader Integrative Health Informatics Projects, Ministry of Information Technology, Govt. of India
- Vd. Rajesh Savera Online Consultant Lifestyle modification through Ayurveda, Pune.
- Vd. Yogesh Kale Director- Bramha Ayurveda Services, Punarvasu Aushdhalaya Pvt. Ltd.
- Vd. Satish Suryvanshi TV Actor
- Vd. Anugya Sharma Actress and Modeling

### Homoeopathic Medical College

- Dr. Mrs.Geeta Rani Arora Research and Development, B. Jain Pharmaceuticals, Editor of The Homoeopathic Heritage, Chief Editor of Homoebuzz,
- Dr. Tarang Krishna Cancer-Healer,
- Dr. Mrs. Sangeeta Sherawat (Ghelhot) General Secretary of Bamra Arogya Trust and Chief Consulting physician at Bamra Arogya Kendra.
- Dr. Saurabh Kalra Currently Zonal head (north zone)
- Dr. Kankana Kalra Working in Dr Batra's positive health clinic Pvt Ltd as Cluster head,
- Dr. Ashish Gokhale Actor
- Dr. Joel Abraham Solomon Since 1998 associated with Hahnemannian Homoeo Forum- as joint secretary and then as secretary till date.
- Dr. Sandeep S. Roy He is the only Indian to have been awarded AEMT (Advanced Expertise in Mistletoe Therapy) for Cancer Management by the prestigious Carl Gustav Carus Cancer Institute, Germany. He is the only Indian to be a member of the International Society for the Development of Cancer Therapy.
- Dr. Manoj Shah Director of Dr. Shah's Advanced Homeopathy and Dr Shah's Media House. Editor In Chief of Homeopathy and Beauty magazine (India's Health Magazine).

### **Nursing College, Sangli**

- Mrs. Roselina Menezhes, Hammad Hospital, Qatar staff nurse in maternity unit.
- Soji Philip, Saudi Hospital
- Himababu Saudi Hospital
- Ashna Simon, Saudi Hospital
- Nutan Tamboli, Kuwait Hospital
- Priti Nikam, Maharashtra Government hospital
- Sheela Patidar, Rajasthan Government hospital
- Manish Patidar, Rajasthan Government hospital
- Susan Bhosale, Maharashtra Government hospital
- Anupam Chopade, Maharashtra Government hospital

### Nursing Collge, Navi Mumbai

- Neethu Panikar- as Govt Staff (St. George Hospital, Mumbai)
- Dhanlaxmi Nadar as Govt Staff ( JJ Hospital, Mumbai)
- Anu Chacko –as Govt Staff ( JJ Hospital, Mumbai)

### 5.1.19 In what ways does the institution respond to alumni requirements?

- Recommendation letters are given to alumni for higher education and placement in Indian and foreign universities/ hospitals
- Transcription and recommendation letters for applying to universities (National & International) are provided to our alumni whenever asked for.
- Alumni have been given special OPD in the Homeopathy hospital & they are invited in annual social gathering & in eminent lecture series.
- The institutes have been eagerly supporting and encouraging all alumni meets and other activities of the alumni association

# 5.1.25 Does the institution enhance the student learning experience by providing for rotation from the teaching hospital to the community and district hospital during the internship period?

- Mandatory rotatory posting is done during internship in the community health centres.
- In internship students are posted at community health centres during training period in Community Medicine.
- Interns are compulsorily rotated in different departments.
- Students compulsorily undergo rotatory training in the rural hospital at various rural health centre. Health and Dental check-up camps are conducted periodically at various rural and poor socioeconomic area.
- The community exposure and training during internship helps the students in overall personality development.

### 5.1.26 Does the institution have immunization policy for its students and staff?

Yes. Immunization policy is in place for students and staff. Immunization policy includes Hepatitis B, H1N1 and swine flu. A hospital infection control committee maintains the record of it. All students and staff are immunized for hepatitis B infection free of cost at the teaching hospitals and other vaccines at a concessional rate. Needle stick injuries are reported and post exposure prophylaxis is given to staff, students and nursing personnel free of cost. An awareness program is carried out for girl students and ladies staff of the hospital and college for awareness about Rubella and Human papilloma virus infections. They are informed about the importance of these vaccines and are motivated to get inoculated against it.

### 5.1.27 Does the institution give thrust on student growth in terms of?

- Physical development
- Emotional control
- Social dimension
- Spiritual growth

### • Physical development:

University conducts annual sports meet to facilitate physical fitness.

Institutions have outdoor stadium for volley ball, basketball court, badminton court, cricket ground and gymnasium as well as facility for indoor games like carom and table tennis.

### • Emotional control:

Guest lectures by eminent speakers are organized during UG and PG orientation programmes with emphasis on stress and time management.

Student counselling cell takes care of emotional problems of the students and the students are benefitted when emotional support is given through regular counselling.

The counselling generally covers the areas personal problems related to the academic, domestic, financial aspects and health aspects.

#### Social dimension:

Institutional thrust on social dimension is given by encouraging student participation in voluntary blood donation camps.

Health awareness rally, Medical exhibition are practiced regularly

Different health days like AIDS day, WHO day, hand hygiene week are observed to spread awareness amongst students.

Students and staff participated actively in Swachha Bharat Abhiyan.

Students promote and participate in eye, organ and body donation campaign.

### • Spiritual growth:

During clinical teaching, importance of holistic cure is taught.

Regular yoga classes are held for both staff and the students in Dental College, Pune and the institute has a designated meditation centre.

Lectures on the topics like 'Art of Mind Control', Yogic practices and exercises are conducted regularly for physical and mental development of students.

Camps are arranged for all students for dhyan and dharana. (Meditation, Concentration and contemplation techniques).

Student's mental growth and stability can be achieved through these exercises. Lectures by "Art of Living" were conducted.

# 5.2 Student Progression

# 5.2.4 What is the percentage of graduates under AYUSH programs employed in the following:

- AYUSH departments/Hospitals
- Multinational companies
- Health clubs
- Spas
- Yoga wellness centers
- Yoga studios
- Health clubs
- Own Yoga cubes/studios?

The university has separate Ayurveda and Homeopathy colleges which offer undergraduate, postgraduate and Ph.D. programmes under AYUSH.

As per the objectives, these institutes focus on providing quality education to the aspirants for the practice of Ayurveda and Homeopathy with potential for employment and add to the community health facilities.

Approximate employment position of graduates of Ayurveda and Homoeopathy is as follows:

•	AYUSH departments/Hospitals	_	22%
•	Multinational companies	_	1%
•	Health clubs	_	2%
•	Spas	_	1%
•	Yoga wellness centers	_	6%
•	Yoga studios	_	1%
•	Health clubs	_	1%
•	Own Yoga cubes/studios	_	1%
•	Self-employment	_	65%

# 5.3 Student Participation and Activities

# 5.3.3 Does the institution provide incentives for students who participate in national / regional levels in sports and cultural events?

Yes. The students who excel in sports/cultural events receive incentives. For example, academic losses are covered by organising extra classes. Separate internal assessment exams are conducted if required. Financial assistance is given for travel and registration for events. Cash prizes and awards are given to winners of sports tournament and cultural events. Special coaching is provided to deserving participants as and when required. Sports gear is provided to participating students. Remuneration to support artists and drapery for cultural activities is provided.

Students are awarded 5 grace marks at the University examinations for participation in national level sports, cultural and NSS activities and competetions as per the rules of the University.

# Criterion – VI Governance, Leadership & Management

# CRITERION - VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

### **MANAGEMENT**

## 6.2 Strategy Development and Deployment

# 6.2.11 Does the institution and hospital have their own updated websites? If so, is the information regarding faculty and their areas of specialization, days of availability, timings, and consultation charges available on the website?

Yes, all the health sciences institutions have their own website:

• Medical College, Pune : www.mcpunebhartividyapeeth.edu

• Dental College, Pune : www.bvdudch.edu

• Ayurveda College : www.coAyurveda.bharatividyapeeth.edu

• Homeopathic College : http://hmc.bharatividyapeeth.edu,

www.bvuhomiopathic.edu.in

• Nursing College, Pune : www.conpune.bharatividyapeeth.edu

• IRSHA : irsha.bharatividyapeeth.edu

The information of public interest is updated regularly on the website. The information regarding faculty and their areas of specialization, consultation charges and timings are uploaded on the website.

# 6.2.12 What are the feedback mechanisms and documentations to evaluate the outcomes of these exercises?

Each college has a system to collect and analyze feedback obtained from all the stakeholders. Some have also initiated online feedback system. All feedback is analyzed and appropriate action taken to ensure the fulfillment of the feedback.

The negative feedbacks have helped us to overcome our weakness and positive feedback have encouraged us and helped us to maintain our status in the field of patient care and education. Definitive steps have been initiated not only to sustain the quality but also to improvise in areas of concern

# 6.4 Financial Management and Resource Mobilization

# 6.4.8 Does the institutions receive fund from philanthropic organizations / individuals towards patient care? If yes, give details.

The institutions do not receive funds from any philanthropic organizations or individuals. However, few equipment necessary for patient care have been donated by generous and likeminded people e.g. ambulance, tourniquets, and Boyle's apparatus by Panchakarma Tail Droni to Ayurveda Medical College.

# 6.4.9 Do patients from other states / abroad come for treatment, reflecting the unique quality health care provided by the institution?

Yes, patients from other states and other countries come to the hospital for secondary and tertiary health care facilities especially for cardiac interventions, pediatric endocrinology opinions and treatment, neurosurgery, renal disorders and dialysis services, pediatric surgery and pediatric hemato-oncology, child guidance clinic. (Bharati Hospital & Research Centre, Pune)

Ayurveda College specializes in authentic Ayurveda treatments e.g. Snehan, Sweden, Vaman, Virechan, Basti, so many patients from abroad & other states visit for such type of treatments. Ayurveda hospital has an exclusively designed Executive Panchakarma centre that is being promoted under Medical tourism. We have many overseas patients also.

# **6.5** Internal Quality Assurance System

# 6.5.8 Are there effective mechanisms to conduct regular clinical audit of the teaching hospital? Give details

Yes, it is being done by the Medical and Dental hospitals for certain aspects of patient care.

- Death audits are carried out every monthly (BHRC, Pune)
- Audits related to the number of patients treated and remuneration generated are conducted on a monthly basis
- Every department also conducts clinical audit.

# 6.5.9 Has the institution or hospital been accredited by any other national / international body?

Yes. Blood Bank is approved by FDA and the BHRC, Pune has cleared step 1 of the process of accreditation by NABH.

# 6.5.10 Does the hospital have institutional and individual insurance schemes to cover indemnity claims?

Yes, the hospitals have a mechanism in place for institutional and individual insurance schemes to cover indemnity claims.

# Criterion – VII Innovations & Best Practices

# CRITERION - VII: INNOVATIONS AND BEST PRACTICES

### 7.1 Environment Consciousness

# 7.1.3 How does the institution ensure that robust infection control and radiation safety measures are effectively implemented on campus?

### Robust infection control -

There is an infection control committee in the hospital which regularly monitors the sources of infection & undertakes measures of infection control. Committee meets every third Friday of the month.

Universal safety precautions are followed in the laboratories & wards.

Fumigation is done regularly in clinical areas and operation theaters.

Instruments used for examination and treatment are cleaned, disinfected and sterilized at the department level as well as at central sterilization unit.

Use of personal protective equipment's like gloves, cap, masks, aprons etc. is mandatory depending on potential for splash.

The infrastructure of the hospital is designed to allow maximum ventilation and sunlight which helps control infections.

The hospital staff and students are trained to safeguard themselves and the patients to prevent cross infections and arrest infections early. They are instructed in proper use of personal protective equipment.

Hepatitis B, Tetanus Toxoid vaccination is compulsory for all students and health care workers

Immuno-compromised patients and those that may prove to be a source of infection to others are isolated.

Pest control measures are carried out in hostels, quarters.

Microbiological assessment of water from various sources in the campus done for potability.

Unindicated drug (antibiotics) usage is discouraged to prevent antibiotic resistance

### **Radiation safety measures**

Our institute takes care of radiation safety measures under the following heads – Structural, Personal, Surveillance and Education.

### Structural:

Our workplace is divided into -

- Supervised areas -where working conditions are kept under review, but special protection is not normally needed.
- Controlled areas where possible exposure of radiation is more, hence requires the workers to follow protection measures. The entrance area is marked with radiation warning signs and red bulbs are illuminated when radiation exposure is ongoing.
- X-Ray, CT scan, Fluoroscopy rooms have lead partitions to protect technicians from radiation exposure.

### **Personal Protection Measures:**

- Exposure time is kept minimum and restricted to area of interest.
- Exposure distance from X-ray tube is maximized.
- Personal Protective Equipment (PPE) include lead aprons, lead gloves, lead goggles, shields of minimum 0.5 mm lead equivalent (thyroid, abdominal, gonad, ovarian as required), lead screen (2mm lead), 2mm lead lined doors in all radiation producing units, lead glass to observe the patient during the x-ray exposure. Periodic testing of this protective equipment is done.
- Individuals (workers or patient's relative who need to be present in the room) who are in radiographer room during any exposure wear protective aprons and gloves of at least 0.25 mm lead equivalent.
- The operator collimate x-ray beam limitation ensures that x-ray field does not extend beyond the region of interest.
- Special care is taken during Pregnancy which includes-
- Prior to examination the study requisition requires details of last menstrual period and the pregnancy status of the female.
- Unless absolutely necessary any radiation exposure is avoided during first trimester.
- If the x-ray procedure does not include the abdomen or pelvis of the pregnant or potentially pregnant patient, the abdominal regions are shielded with at least 0.25 mm lead equivalence.
- To monitor the dose limit and operator protection measure authentication, dose measurement through Thermo luminescence badges worn by all workers and doctors is done at 3 months interval through Rentek laboratory, Mumbai.

### **Surveillance:**

 All equipment is regularly checked by appointed agency for quality assurance and radiation.

### Criterion – VII: Innovations and Best Practices

- Radiation Safety officer (RSO) monitors all radiation protection measures.
- Radiographer is responsible for notifying the management in case of any safety hazard.
- Radiology employees report defective equipment, unsafe conditions, acts or safety hazards to radiographer and RSO.

### **Education:**

All workers and doctors are trained and educated regarding radiation safety measures.

### Others:

- Completely sealed Radiation exposure room (as directed by DCI) with ventilation and compartmentalization for intraoral and extra oral radiography.
- Room and personnel shielding is carried out according to AERB guidelines.
- All radiation exposure is based on the Basic principle of ALARA (As Low As Reasonably Achievable).
- Radiation safety measure certification are updated every year
- The use of low emission monitors has considerably reduced radiation.
- Proper precautions in radiation zones are a rule. E.g. use of lead aprons in X ray rooms and operation theatres involving use of C Arm image intensifier.
  The X-ray room is designed as per the norms (Lead plating, etc.) of AERB {Atomic Energy Review Board} and safety certificates obtained prior to its use.

# 7.1.4 Has the institution been audited / accredited by any other agency such as NABL, NABH, etc.?

The hospital has cleared Step 1 in the process of accreditation by NABH. The laboratory of Bharati Hospital has commenced the process of accreditation from NABL.

The college is annually inspected by a committee from the Central Council of Indian Medicine, Ministry of AYUSH, Government of India, and New Delhi.

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# **ANNEXURE-I**

# Number of procedures in clinics per month and year: - Dental only

# **Dental College and Hospital, Pune**

Month	2012	2013	2014	2015	2016 till June
January	12608	17716	17031	19790	22545
February	10892	15254	15556	18117	19320
March	12086	15759	17567	19456	18236
April	11338	16183	19458	19818	19278
May	12140	17628	18953	20256	21777
June	14736	19231	18445	21587	19422
July	12724	21010	20173	22708	
August	14536	19781	17618	21004	
September	12764	17845	17795	19331	
October	16081	20784	15338	22273	
November	13860	17303	19771	21750	
December	16342	20379	19880	23400	

# **Dental College and Hospital, Sangli**

Month	2012	2013	2014	2015	2016 till June
January	4610	4946	6328	7021	9684
February	4820	4575	5530	5366	8418
March	4606	5058	4903	5888	9556
April	4583	4824	5155	6530	8904
May	5308	3948	5669	7707	10045
June	5050	4402	5860	7791	9682
July	5964	4838	5872	8669	
August	7577	5904	5088	8493	
September	5841	5349	5458	7603	
October	5734	6724	3991	8189	
November	3654	5136	5968	6130	
December	4681	6761	6716	8118	

# Dental College and Hospital, Navi Mumbai

Month	2012	2013	2014	2015	2016 till June
January	4610	4946	6328	7021	9684
February	4820	4575	5530	5366	8418
March	4606	5058	4903	5888	9556
April	4583	4824	5155	6530	8904
May	5308	3948	5669	7707	10045

Month	2012	2013	2014	2015	2016 till June
June	5050	4402	5860	7791	9682
July	5964	4838	5872	8669	
August	7577	5904	5088	8493	
September	5841	5349	5458	7603	
October	5734	6724	3991	8189	
November	3654	5136	5968	6130	
December	4681	6761	6716	8118	

# ANNEXURE-II

# College-wise details of equipment procured

# Dental Navi Mumbai

Sr. No.         Name of the Equipment         Year         Qty.         Rs.         2016 till June           1         Hydro Soldering Unit         2012-2013         1         232848.00         232848           2         Trinocular Microscope With Camera         2012-2013         1         410000.00         410000           3         Soft Tissue Microtome         2012-2013         1         1017000.00         1017000           4         Ceramic Furnace         2013-2014         1         413000.00         413000           5         Casting Machine         2013-2014         1         273000.00         273000           6         Elecrtro Surgery         2013-2014         1         203000.00         203000
2         Trinocular Microscope With Camera         2012-2013         1         410000.00         410000           3         Soft Tissue Microtome         2012-2013         1         1017000.00         1017000           4         Ceramic Furnace         2013-2014         1         413000.00         413000           5         Casting Machine         2013-2014         1         273000.00         273000
2     With Camera       3     Soft Tissue Microtome     2012-2013     1     1017000.00     1017000       4     Ceramic Furnace     2013-2014     1     413000.00     413000       5     Casting Machine     2013-2014     1     273000.00     273000
4         Ceramic Furnace         2013-2014         1         413000.00         413000           5         Casting Machine         2013-2014         1         273000.00         273000
5 Casting Machine 2013-2014 1 273000.00 273000
6 Electro Surgery 2013-2014 1 203000.00 203000
7 RVG Kodak 2013-2014 1 203000.00 203000
8 Milling Machine 2013-2014 1 644000.00 644000
9 Pressure Molding 2013-2014 1 273000.00 273000 Machine
10 GuttaPercha 2013-2014 1 238000.00 238000
11 NSK Implant Surgico Pro 2013-2014 1 224000.00 224000
12 Die Cutting Machnie 2013-2014 2 203000.00 406000
13 Operating Microscope 2013-2014 1 1225000.00 1225000
14 Conscious Sedation Unit 2013-2014 1 245000.00 245000
15 Spot Welder With 2013-2014 1 252000.00 252000 Soldering Attach.
16 OPG Machine Digital 2014-2015 1 1875000.00 1875000
17 Electropolishier 2014-2015 1 394760.00 394760
18 Silicon Kit 2014-2015 1 214356.00 214356
19 Physiodispenser 2014-2015 1 231460.00 231460
20 RVG 5100 2014-2015 1 213000.00 213000
21 Spot Weldering With 2014-2015 1 264120.00 264120 Attachment
22 Physiodispenser-NSK 2015-2016 1 226200.00 226200
23 Cavtron Jet Plus - 2015-2016 1 208800.00 208800 Dentsply
24 Hydrosolder -Sumax 2015-2016 1 253750.00 253750
Total 10140294

# **Dental Pune**

Sr. No.	Name of the Equipment	Year	Amount
1	Laser Unit	2011-12	323438.00
2	Physio Dispenser with fiber optic handpiece	2011-12	362250.00
3	Pressure molding machine	2011-12	212800.00
4	Ceramic Furnace Programmal IP-3000	2011-12	693750.00
5	Soft tissue laser	2012-13	385000.00
6	Bleaching light	2012-13	259000.00
7	Ultrasonic Periosurgery Sonic Surgeon 300	2013-14	433125.00
8	Dental cast surveyour	2013-14	307125.00
9	X-Ray Machine Floor Mounted Movable	2013-14	228375.00
10	Sagittal & Reciprocating saws with Handpiece	2013-14	225225.00
11	Vacuum/ Pressure moulding unit /Starter Kit	2013-14	352800.00
12	RVG	2014-15	239625.00
13	Eectropolishing unit	2014-15	673080.00
14	Hydrosolder with welding attachment	2014-15	239625.00
15	R.V.G.	2014-15	239625.00
16	CS 8000 Digital Panoramic System+ CS 8000c attachment to Digital Panoramic system for cephalometry	2014-15	1800000.00
17	RVG	2014-15	205900.00
18	Rotary Microtome	2014-15	968625.00
19	RVG	2015-16	203000.00
20	Implant kit along with Physiodisprnser	2015-16	449500.00
21	Anesthesia machine Electronic Vaporizer bake bar	2015-16	420500.00
22	LAS Sinus Lift	2015-16	261000.00
23	CAS Sinus Lift	2015-16	290000.00
24	EZ-Retriever System	2015-16	290000.00

# **Dental Sangli**

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
1	Hydro Soldering Unit	2012-2013	1	232848.00	232848.00
2	Trinocular Microscope With Camera	2012-2013	1	410000.00	410000.00
3	Soft Tissue Microtome	2012-2013	1	1017000.00	1017000.00
4	Ceramic Furnace	2013-2014	1	413000.00	413000.00
5	Casting Machine	2013-2014	1	273000.00	273000.00
6	Elecrtro Surgery	2013-2014	1	203000.00	203000.00

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
7	RVG Kodak	2013-2014	1	203000.00	203000.00
8	Milling Machine	2013-2014	1	644000.00	644000.00
9	Pressure Molding Machine	2013-2014	1	273000.00	273000.00
10	GuttaPercha	2013-2014	1	238000.00	238000.00
11	NSK Implant Surgico Pro	2013-2014	1	224000.00	224000.00
12	Die Cutting Machnie	2013-2014	2	203000.00	406000.00
13	Operating Microscope	2013-2014	1	1225000.00	1225000.00
14	Conscious Sedation Unit	2013-2014	1	245000.00	245000.00
15	Spot Welder With Soldering Attach.	2013-2014	1	252000.00	252000.00
16	OPG Machine Digital	2014-2015	1	1875000.00	1875000.00
17	Electropolishier	2014-2015	1	394760.00	394760.00
18	Silicon Kit	2014-2015	1	214356.00	214356.00
19	Physiodispenser	2014-2015	1	231460.00	231460.00
20	RVG 5100	2014-2015	1	213000.00	213000.00
21	Spot Weldering With Attachment	2014-2015	1	264120.00	264120.00
22	Physiodispenser-NSK	2015-2016	1	226200.00	226200.00
23	Cavtron Jet Plus - Dentsply	2015-2016	1	208800.00	208800.00
24	Hydrosolder -Sumax	2015-2016	1	253750.00	253750.00
				Total	10140294.00

# **Nursing, Pune**

	Sr. No.	Name of the Equipment	Year	Amount
Ī	1	Fire Fighting Equipment	2011-12	412000.00
	2	COMPUTERS (20)	2015-16	385000.00

# Ayurveda Pune

Sr. No.	Name of the Equipment	Year	Amount
1	EppendrofBiophotometer Plus	2011-12	512000.00
2	1 rat blood pressure system auto matic inflation software	2011-12	482000.00
3	Eppendort Ag (Set )	2011-12	568000.00
4	CI Coulborn Instruments, Truscandat control data & software	2011-12	446000.00

Sr. No.	Name of the Equipment	Year	Amount
5	Surgical Opearting microscope for Ent with lence	2012-13	680000.00
6	C.Armsurgico -60	2012-13	790000.00
7	MultiparameterMoniter, Pulseoxemeter	2012-13	260000.00
8	Heart start with pacing Biphasic defibrillator	2012-13	284000.00
9	Fetal Monitor	2012-13	210000.00
10	Pulse oxymeter	2014-15	493000.00
11	Electronic medical Instrument ventilator	2014-15	650000.00
12	Digital xray Machine	2014-15	875000.00
13	Laproscope Set	2014-15	1543000.00
14	Digital Ultrasonic Machine	2014-15	1625000.00
15	Auto Clave (Horizontal)	2014-15	1250000.00
16	Pulse oxymeter	2014-15	319000.00
17	Ent Endoscope	2014-15	220000.00

# **Medical College Pune**

Sr.	Date Of Purchase	Specification	Qty	Rate	Amount Rs.	User Dept
1	14.11.14	Dornier	1			Urology
		Compact Sigma		7,028,235.00	7,028,235.00	
2	03.11.14	Cyber TM 150	1			Urology
		Medical System		4,740,000.00	4,740,000.00	
3	16.03.15	Walk in Cold	2			Lab
		Room		2,564,145.00	5,128,290.00	
4	24.09.14	Electrical Main	1			General
		Pannel		14,186,538.00	14,186,538.00	
5	09.08.20	Ultrasound	1	2625000.00	2625000.00	IVF
	14	systems HD 7				
		Philips				
6	19.7.201	Refrigerated	2	1332000.00	2664000.00	Blood
	4	Centrifudge -				Bank
		Rotanta				
		460 / Multifug				
		4R				
7	19.7.201	NAT Testing	1	3125000.00	3125000.00	Blood
	4	Equipment 16				Bank
		Channel				
		Amplification				
		12 GC and				
		Extraction				

Sr.	Date Of Purchase	Specification	Qty	Rate	Amount Rs.	User Dept
		Smart Cycler II				
8	24.09.20	Ventilator	2	13750 US\$	27500 US\$	ICU
	14	Viasis Vela				
	17.0.201	Comprehensive	1	20700 1100	20700 1194	MON
9	17.9.201 4	NO2 Delivery	1	28700 US\$	28700 US\$	NICU
		System ( NOXSCO2)				
10	03.11.14	Morecellator	1	2841750.00	2841750.00	Urology
		System with Morecellator				
		&Bosade				
11	14.10.20	Optical	1	2675000.00	2675000.00	Ophthal
	14	Coherence				- r · · ·
		Tomography				
		3D				
		OCT 1 Maestro				
12	28.10.13	Multipara	12	110000.00	1320000.00	
		Monitor Nihon Koden (PVM				
		2701),				
		Multipara				
		Monitor with	8	130000.00	1040000.00	
		IBP Nihon				
		Koden (PVM				
		2703),				
		Multipara	5	280000.00	1400000.00	ICU
		Monitor with ETC02 Nihon				
		Koden Koden				
		(bsm3562),				
		Multipara	1	180000.00	180000.00	
		monitor with				
		BIS Module				
		Nihon Koden				
		(QE910P),		220000 00	440000 00	
		Defibrillator	2	220000.00	440000.00	
13	09.12.13	without pacing Incubator GE	1	1224524.00	1224524.00	NICU
	07.12.13	Giraffe, Wamer		1 <i>22</i> 7 <i>2</i> 7.00	1 <i>22</i> 7 <i>32</i> 7,00	11100
		GE Lullaby,				
		Phototherapy				

Sr.	Date Of Purchase	Specification	Qty	Rate	Amount Rs.	User Dept
		LED GE LullabyWipro GE Healthcare Pvt Ltd	8	164524.00	1316192.00	
14	27.05.13	Intra Aortic Balloon Pump, AutoCAT 2 wave (Automatic+Fib er Optic)Inter Medics	1	27000000.00	2700000.00	Cathlab
15	03.02.14	Scopy Instruments for Operation ThreterKarl Storz Endoscopy I P Ltd	1 Set		2499966.000	Pediatric OT
16	22.11.13	Gas Plasma Sterilization system 50 LtrSterrad NX Cat. No. 10033Johnson & Johnson Ltd	1	2704000.00	2704000.00	CSSD
17	18.10.13	Avea Ventilators/Res pirator and accessoriesLife care medical Enterprises P Ltd	1	2655639.00	2655639.00	Main OT
18	23.10.13	Phacoemulsific ation UnitParekh Integrated Services P Ltd	1	3490000.00	3490000.00	Opthal
19	6/8/2012	Digital R/F system- Flexavision FD Shimadzu	1	US\$175000	US\$175000	Radiolo gy

Sr.	Date Of Purchase	Specification	Qty	Rate	Amount Rs.	User Dept
		Medical Pvt.				
		Ltd				
20	14/01/20	Semi automated	1	Rs.3,67000/-	Rs.3,67000/-	Bioche
	13	Electrophoresis				mistry
		unit Helena				
21	30/10/20	Anaesthesia	1	USD	USD	Anaesth
	12	machine, Wato		14400.00	14400.00	esia
		EX 20 with				
		IMEC Monitor				
		Life care				
		medical systems				
22	30/10/20	Anaesthesia	1	USD	USD	Anaesth
	12	machine, Wato		18200.00	18200.00	esia
		EX 30 with				
		IMEC Monitor				
		Life care				
		medical systems				
23	15/6/12	GI Endoscopes	1	4700000	4700000	Surgery
		&	Set			
		Bronchoscopes				
		Olympus				

# BVDU Medical College, Sangli

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
1	PATH GERMANY TEOAE &DPOAE PRINTER WITH CABLE	2012	1	363400	363400
2	TUROSEAL VBE MAKE SHALYA VESSAL SEALING CAUTERY	2012	1	510000	510000
3	C-ARM HIGH FREQUENCY WITH 9" TV ADONIS	2012	1	929271	929271
4	COLOR DOPPLER ULTRASOUND MACHINE GE MAKE MODEL-VIVID S5	2012	1	1800000	1800000
5	X-RAY MACHINE 500MA MEDITRONICS	2012	1	450000	450000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
6	X-RAY MACHINE 300MA MEDITRONICS	2012	1	350000	350000
7	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
8	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
9	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
10	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
11	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
12	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
13	ANESTHESIA MACHINE WATO-20	2012	1	560550	560550
14	ANESTHESIA MACHINE WATO-55	2012	1	852060	852060
15	MULITPARA MONITOR IMEC WITH ETCO2	2012	1	201792	201792
16	MULITPARA MONITOR IMEC WITH ETCO2	2012	1	201792	201792
17	MULITPARA MONITOR IMEC WITH ETCO2	2012	1	201792	201792
18	MULITPARA MONITOR IMEC WITH ETCO2	2012	1	201792	201792
19	VELA VENTILATOR	2012	1	687500	687500
20	VELA VENTILATOR	2012	1	687500	687500
21	VELA VENTILATOR	2012	1	687500	687500
22	VELA VENTILATOR	2012	1	687500	687500
23	VELA VENTILATOR	2012	1	687500	687500
24	AVEA VENTILATOR	2012	1	1062500	1062500
25	BUBBLE CPAP	2012	1	208334	208334
26	Camera preowned stryker model 1188HD CCD	2012	1	525000	525000
27	VITEK 2 COMPACT 30 VK2C11153	2013	1	1175000	1175000
28	TB CULTURE SYSTEM 3D60 SR.210BS4116	2013	1	253571	253571
29	TMT MACHINE NASAN	2013	1	223256	223256

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	MAKE MODEL-ST WIN				
30	OT ORTHO TABLE WITH ORTHO ATTACHMENT TECHNICA	2013	1	310000	310000
31	UPS 120KVA FOR CATH LAB	2013	1	862059	862059
32	SONOGRAPHY MACHINE HD11XE ULTRASOUND PHILIPS MACHINE	2013	1	2000000	2000000
33	SHALYA MAKE TUROSEAL CAUTERY TS13FO212	2013	1	510000	510000
34	HAEMODIALYSIS MACHINE 4008SV 3SXAH497	2013	1	675000	675000
35	ACT MACHINE MINI BATCH.641306311	2013	1	220000	220000
36	HAEMODIALYSIS MACHINE 4008SV WITH OCM	2013	1	675000	675000
37	CATH LAB MACHINE ALLURA XPER FD10	2013	1	23358185	23358185
38	INJECTOR FOR CATH LAB IIIUMENA PEDESTAL 1	2013	1	779756	779756
39	AMBU ASCOPE MONITOR WITH 5+1 PROBES	2013	1	285050	285050
40	HOLTER MONITOR BURDICK SR 87322152700791	2013	1	423300	423300
41	SONOGRAPHY MACHINE SONOSITE M-TURBO	2013	1	1550000	1550000
42	SONOGRAPHY MACHINE SONOSITE M-TURBO	2013	1	1550000	1550000
43	HORMONIC SCALPEL GE N 04 JOHN SON	2013	1	1026600	1026600

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	MAKE				
44	VELA VENTILATOR.2664,2602, 2668,2549	2013	1	820325	820325
45	VELA VENTILATOR.2664,2602, 2668,2549	2013	1	820325	820325
46	VELA VENTILATOR.2664,2602, 2668,2549	2013	1	820325	820325
47	VELA VENTILATOR.2664,2602, 2668,2549	2013	1	820325	820325
48	ULTRAVIOLET CHAMBER	2013	1	410000	410000
49	ENT OPD TREATMENT UNIT	2013	1	454100	454100
50	YAG LASER NIDEK MAKE MODEL YC1800 WITH ACCE	2013	1	1150000	1150000
51	X-RAY MACHINE DIAGNOX 4050 800MA	2013	1	2190476	2190476
52	VENTILATOR SLE 5000, MR 850 HUMIDIFIRE WITH STD ACCE	2013	1	1310000	1310000
53	GREEN YAG LASER MODEL-GYC1000, SLIT LAMP,LASER INDIRECT OPTHALMOSCOPE, GOGGLES	2013	1	1619278	1619278
54	BRONCHO-FIBER SCOPE CAT 11004BC1	2013	1	655906	655906
55	PLATELET INCUBATOR MODEL-PI10 PLUS REMI	2013	1	217490	217490
56	THERMO SHANDON MODEL FINESSE 325 MANUAL MICROTOME	2013	1	756000	756000
57	PHILIPS HD 15 COLOR DOPPLER , 4 PROBE,2KVA APC UPS	2013	1	3142857	3142857

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
58	POWER LAB FOR PHARMCOLOGY	2013	1	606280	606280
59	LYNX PENTAHEAD MICROSCOPE LM-52- 6000	2014	1	4676500	4676500
60	LYNX TRINACULOR RESEARCH MICROSCOPE 1806	2014	1	361250	361250
61	MICRODEBRIDER-ENT BIEN AIR MODEL- OSSEO UNO	2013	1	819850	819850
62	VELA VENTILATOR @ USD 13750,	2013	1	846312	846312
63	VELA VENTILATOR @ USD 13750,	2013	1	846312	846312
64	AVEA VENTILATOR @ USD 21250	2013	1	1308182	1308182
65	FRESINEUIS DIALYSIS MACHINE 3 S X AS618	2014	1	770000	770000
66	FRESINEUIS DIALYSIS MACHINE 3 S X AS624	2014	1	770000	770000
67	FRESINEUIS DIALYSIS MACHINE 3 S X AS630	2014	1	770000	770000
68	FRESINEUIS DIALYSIS MACHINE 3 S X AS631	2014	1	770000	770000
69	FUNDS CAMERA TOPCON	2013	1	1490000	1490000
70	AB SCAN MEDA ULTRASONIC ODM 2200	2013	1	685000	685000
71	CHILLER FOR MRI PCAS2046	2013	1	782750	782750
72	UPS 160KVA EMERSON FOR MRI	2013	1	861403	861403
73	MRI MULTIVA 1.5 T SR 781076	2013	1	48573564	48573564
74	RF CAGE FOR MRI ROOM	2013	1	1600000	1600000
75	FLASH STERILZER CISA TABLE TOP 18 LTR 22628	2013	1	520000	520000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
76	RO SYSTEM 1000LPH WITH STD ACCE	2014	1	896130	896130
77	RESUCIANNE Q CPR-D 176-01250	2013	1	350532	350532
78	C-ARM IMAGE INTENSIFIER MODEL- AE-60HES, SR.NO 140442	2014	1	936209	936209
79	AUTOMATIC TISSUE PROCESSOR SUPER DELUXE 1 LIT , MODEL-YSI 103 MAKE YORCO SR.NO. 14B0806	2014	1	209812	209812
80	ZOLL M SERIES DEFIBRILLATOR T128389	2014	1	425000	425000
81	ZOLL M SERIES DEFIBRILLATOR T128388	2014	1	425000	425000
82	DIALYSIS HAEMODIALYSER REPROCES MACHINE RENACLEAN PLUS WITH STD ACCESSORIES	2014	1	325000	325000
83	VENTILATOR VELA BE TO404 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841294	841294
84	VENTILATOR VELA BETO 3767 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841294	841294

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
85	VENTILATOR VELA BE TO 5501 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841294	841294
86	VENTILATOR VELA BETO 5504 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841294	841294
87	VENTILATOR VELA BETO 4136 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841294	841294
88	VENTILATOR VELA BETO 3765 COMPREHENSIVE MODEL DIAMOND SERIES CRITICAL CARE PEADIATRIC, ADULT WITH STD ACCESSORIES	2014	1	841293	841293
89	SKYLINE 44- 18 BED WIRELESS CENTRAL MONITOR SYSTEM	2014	1	375000	375000
90	ETO MACHINE (4.5CF - 127 LEO MODEL) SIZE = 12" H x 12" W x 54" D WITH M.S.TABLE & FOOT OPERATED SEALING MACHINE	2014	1	600000	600000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	STD ACCESSORIES				
91	A - SCAN PLUS CONNECT (ACCUTOME USA) MACHINE OPHTHALMIC A SCAN BIOMETER - CPMPRISING OF CONSOLE, PROBE, FOOTPEDAL, TEST BLOCK, PRAGER SHELL FOR IMMERSION BIOMETRY, ORIGINAL SOFTWARE, CD, & STD ACCESS.	2014	1	220000	220000
92	HEMODIALYSIS MACHINE WITH ACCESSORIES 4008S NG V10(M204001), MODULE WATER INLET FILTER 4008 NG (M427311) & HOSE COUPLING 3/4 INCH 5008/S/400S V10 FOR HEMODIALYSIS SYSTEM	2014	1	770000	770000
93	HEMODIALYSIS MACHINE WITH ACCESSORIES 4008S NG V10(M204001), MODULE WATER INLET FILTER 4008 NG (M427311) & HOSE COUPLING 3/4 INCH 5008/S/400S V10 FOR HEMODIALYSIS SYSTEM	2014	1	770000	770000
94	HEMODIALYSIS MACHINE WITH ACCESSORIES 4008S NG V10(M204001),	2014	1	770000	770000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	MODULE WATER INLET FILTER 4008 NG (M427311) & HOSE COUPLING 3/4 INCH 5008/S/400S V10 FOR HEMODIALYSIS SYSTEM				
95	HEMODIALYSIS MACHINE WITH ACCESSORIES 4008S NG V10(M204001), MODULE WATER INLET FILTER 4008 NG (M427311) & HOSE COUPLING 3/4 INCH 5008/S/400S V10 FOR HEMODIALYSIS SYSTEM	2014	1	770000	770000
96	FIBER URETERO - RENOSCOPE "E - LINE" SR.NO.5000307200 (8702, 524)	2014	1	218104	218104
97	2CHANNEL CONTINUOUS IRRIGATION - LASER - URS SR.NO. 1100199635 (7326071)	2014	1	1075788	1075788
98	MICROSCOPE WITH BEAM SPLITTER & CAMERA - ZEISS OPMI 1 FC SURGICAL MICROSCOPE USE FOR EAR TESTING OPERATING PURPOSE WITH STD ACCESSORIES SET	2014	1	1046937	1046937
99	SLIT LAMP (TOPCON) SL - D701 FAG WITH DIGITAL CAMERA DC - 4 & BACKGROUND ILLUMINATOR BG -5	2014	1	1025000	1025000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	WITH ZEN VISION INSTRUMENT TABLE COMPUTER SYSTEM & PRINTER WITH ACCESSORIES				
100	MICROSCOPE (OPERATION) TOPCON OMS - 710 WITH RELAY LENS, SONY 3 CHIP CAMERA & VOLK BIOM MERLIN SURGICAL SYSTEM WITH ACCESSORIES & TV	2014	1	2950000	2950000
101	HAEMODIALYSIS MACHINE MODEL-5008 FRESENIUS	2014	1	1525000	1525000
102	COAGULATION ANALUZER Z-ART 4	2014	1	350000	350000
103	PHACOEMULSIFICATIO N WITH POST SEGMENT VITRCTOMY	2014	1	4100000	4100000
104	ROTABLATOR CONSOLE KIT H802220200381	2014	1	2990000	2990000
105	IVUS SYSTEM & FFR	2014	1	5981999	5981999
106	ZOLL DEFIBRILATOR M SERIES WITH STD SR.T12D128387	2015	1	276190	276190
107	PHILIPS MAKE ULTRASOUND MACHINE HD7 XE WITH FOUR PROBE	2014	1	2500000	2500000
108	HIGH VOLTAGE BOX FOR CT SCAN MACHINE	2014	1	2025000	2025000
109	HIGH SPEED STRILIZER SR 06	2014	1	314286	314286
110	WALK IN COOLER FOR BLOOD BANK CAP 2000 BAGS	2015	1	460000	460000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
111	MARYLAND GRASP FORCEPS DIA 5MM (CODE NO.684.04.02) & others instruments	2015	1	942800	942800
112	OPERATION TABLE ( ELECTRIC BASIS) surgident make [ neuro surgery]	2015	1	250000	250000
113	AUTOMATIC TISSUE PROCESSOR WITH STD ACCESSORIES.ELECTR A - 1 LTR CAP. MODEL - YSI 104, YORCO MAKE	2015	1	315000	315000
114	ELECTROPHORESIS SYSTEM SET SEBIA K - 20 WITH STD ACCESSORIES [INCUBETOR DRYER, CHAMBER, DESKJET PRINTER, HYDRAGEL PROTENIN (E) K 20, POWER SUPPLY]	2015	1	650000	650000
115	DRAGER MAKE NEONATAL VENTILATOR:BABYLO G 8000 PLUS WITH INCLUDES. 1]HFOV,2] F&P MR 850 HUMIDIFIER 3] PSV- VG.ASHA-0021	2015	1	1437132	1437132
116	VIDEO ERCP ENDOSCOPE SYSTEM OLYMPUS OPTERA, CENTRE CV - 170 OPTERS, DUDENOSCOPE ACTREA TYPE - 150, EVIS SCOPE CABLE, MONITOR SONY WITH HD ADAPTOR, LEAKAGE TESTER,	2015	1	2100000	2100000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	CANNULA & SPHINCTORTOME WITH STD ACC.				
117	RO PLANT CAPA-200 LTR FOR ICU	2015	1	442816	442816
118	Nova stat profile phox plus sr sll312021 [blood gas analzer]	2015	1	465000	465000
119	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
120	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
121	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
122	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
123	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
124	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
125	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
126	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
127	Led Surgical operating light double dome hospilite model 600+600	2015	1	225000	225000
128	Trinocular microscope with HD resolution CCD camera with computer ,printer	2015	1	490000	490000
129	ix-5 ventilator sr 2014-12- 02092 picu	2015	1	1020000	1020000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
130	HOPKINS ® TELESCOPE 0°, 2.9 MM, 36CM SR.NO.1200 SK , 10324AA	2015	1	220056	220056
131	KARL STORZ PULSAR II SR.NO.330208, 387, PV1383, XV1417 40160101	2015	1	454677	454677
132	19" HD MONITOR SR.NO.M040OU036, M040OU046 3619 NB	2015	1	202280	202280
133	19" HD MONITOR SR.NO.M040OU036, M040OU046 3619 NB	2015	1	202280	202280
134	PCR COMPLETE UNIT WITH THERMOCUCLER, MICRO CENTRIFUGE,UV ILLUMINATOR, SUB MARINE GEL, ELECTROPHORESIS UNIT REAGENT & KITS	2015	1	646000	646000
135	battery operated drill & saw attachementmanman	2015	1	411000	411000
136	VENTILATOR AVEA (STANDARD MODEL) WITH STD ACCESSORIES	2016	1	1333384	1333384
137	TRIBEAM PREMIUM (ND:YAG Q SWITCH) WITH STD ACCESSORIES	2016	1	2290000	2290000
138	LASER MACHINE (FRAXIS CO2 FRACTIONAL LASER SYSTEMS) WITH STD ACCESSORIES USE FOR SKIN DEPT	2016	1	1162000	1162000
139	LASER MACHINE (VIKINI DIODE LASER	2016	1	1564000	1564000

Sr. No.	Name of the Equipment	Year	Qty.	Rs.	Amount
	SYSTEMS) WITH STD				
	ACCESSORIES USE FOR				
	SKIN DEPT				
140	SHALYA MAKE	2016	1	510000	510000
140	TUROSEAL CAUTERY	2016		510000	510000
				Total	192202845

# **ANNEXURE-III**

# IPD and OPD STATISTICS in the TEACHING HOSPITALS

# **Medical College, Pune**

Month	201	2	201	.3	201	.4	201	.5	2016 ti	ill July
	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD
January	46781	6117	50068	7032	46691	7186	43165	6963	42949	6978
February	47341	6191	50223	7114	46738	7901	40212	6992	39500	6837
March	47817	6265	50379	7202	46785	7854	42913	6933	42502	3977
April	47066	6334	50534	7288	46830	6827	43242	6973	42794	7006
May	47126	6410	65694	7375	46878	6996	43253	7006	42845	7052
June	47640	6493	58103	7435	47474	6983	43298	7039	42892	7085
July	48289	6571	57494	7524	47948	7082	43079	7007	42935	7113
August	47992	6680	54920	7614	48537	6232	42918	7998		
September	48226	6723	61242	7732	48960	8056	42794	6999		
October	48832	6797	56015	7825	49442	8132	42864	6960		
November	48438	6872	48592	7915	49935	8215	42839	6982		
December	49626	6948	46644	8010	49428	7134	42847	6958		
TOTAL	575175	64553	649908	90066	575646	83664	513422	83808		

# Medical College and Hospital, Sangli

Month	2012 2013 2014		4	2015		2016 till July				
	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD
January	23232	1809	30563	1875	33538	2091	33695	1714	33837	2412
February	23314	1784	27035	1839	28404	1823	31215	1883	32837	2406
March	23528	1837	29807	1934	30931	1924	31418	1658	34782	2475
April	22600	1801	30869	1983	33073	3239	41770	3748	33303	2130
May	24256	1854	32033	2097	36249	2686	42085	4409	36497	2741
June	24625	1845	30928	2010	34248	2161	38168	2996	36351	2673
July	24619	1896	34246	2181	34052	2290	34100	2391	36077	2594
August	25021	1966	33265	2070	30229	2037	31769	2165	35501	2547
September	27974	1801	29435	1837	32523	2052	31954	1830	32547	2198
October	30447	1952	33379	2088	29821	1784	33845	2471		
November	28117	1819	29493	1904	32405	2014	29472	1682		
December	29321	2012	30752	2013	33484	2154	33522	1881		

# **Dental College and Hospital, Pune**

Month	2012	2013	2014	2015	2016 till July
	OPD	OPD	OPD	OPD	OPD
January	12608	17716	22381	19790	20877
February	10892	15254	17664	18117	21121
March	12086	15759	17589	19456	22990
April	11338	16183	16762	19818	20657
May	13822	17628	18278	20256	23094
June	14736	19231	18445	21587	23059
July	12724	21010	20059	22708	22169
August	14539	19781	17618	21004	
September	12764	17845	17795	19331	
October	16081	20784	15338	22273	
November	13860	17303	19771	17600	
December	16342	20379	19880	22998	

# **Dental College and Hospital, Sangli**

Month	2012	2013	2014	2015	2016 till July
	OPD	OPD	OPD	OPD	OPD
January	4610	4946	6328	7021	9684
February	4820	4575	5530	5366	8418
March	4606	5058	4903	5888	9556
April	4583	4824	5155	6530	8904
May	5308	3948	5669	7707	10045
June	5050	4402	5860	7791	9682
July	5964	4838	5872	8669	
August	7577	5904	5088	8493	
September	5841	5349	5458	7603	
October	5734	6724	3991	8189	
November	3654	5136	5968	6130	
December	4681	6761	6716	8118	

# Dental College and Hospital, Navi Mumbai

Month	2012		2013		2014		2015		2016 till July	
	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD
January	6120		8889		9763		9818		9881	
February	5757		8127		7957		9151		9976	
March	5928		8659		85	15	88	98	10947	
April	5808		8867		8136		8911		9945	
May	6076		8834		9146		9283		10799	
June	6007		8728		9086		9226		10977	

Month	2012	2013	2014	2015	2016 till July
July	5907	8846	9494	10036	
August	5892	9071	8573	9282	
September	5139	7770	8705	8880	
October	5990	9292	7253	9698	
November	6309	8053	8957	7942	
December	8169	8882	9892	10616	

# College of Ayurveda, Pune

Month	20	12	20	13	20	14	20	15	2016 t	ill July
	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD
January	8953	1353	8275	886	8971	924	9650	955	15265	1026
February	9419	1252	7515	812	7867	763	8761	880	15239	1061
March	9446	1300	8837	933	8245	821	8773	920	15917	1052
April	8152	1136	9960	942	7879	845	8689	917	13929	1038
May	8632	1116	10815	972	8118	912	8257	906	15218	1083
June	8891	1065	10572	844	8350	827	8848	880	15454	1085
July	9433	1075	11169	913	8912	939	9319	953		
August	9970	980	8712	940	8144	874	8903	938		
September	8165	863	9457	855	8506	933	8335	864		
October	8122	1012	11030	992	7580	916	8540	951		
November	7130	878	9030	807	8789	899	6878	768		
December	7864	924	8138	936	9600	932	9028	1013		

# College of Homeopathy, Pune

Month	20	12	20	13	20	14	20	15	2016 t	ill July
	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD	OPD	IPD
January	2207	41	2706	39	3452	39	2113	39	1911	29
February	2213	43	2673	45	2879	55	2142	31	1876	28
March	2802	46	2501	40	3029	40	2153	36	1739	31
April	2343	44	2535	40	2678	42	2076	35	1764	28
May	1847	35	2079	27	1900	30	1706	22	1452	25
June	1926	42	2762	31	2282	32	1598	31	1864	30
July	2061	47	4110	49	2617	39	2301	38		
August	2352	48	3808	47	2380	43	2453	37		
September	2607	49	3675	31	2384	35	2361	40		
October	2115	44	3336	29	1731	30	2610	44		
November	1916	36	2084	25	2158	33	1225	32		
December	1690	42	2694	31	1943	31	1965	30		