

ANNUAL REPORT

[01 APRIL 2018 TO 31 MARCH 2019]

RESEARCH DEPARTMENT at Lata Mangeshkar Medical Foundation's
Deenanath Mangeshkar Hospital and Research Centre Pune, Maharashtra, India



Research Department, 14th Floor, Wing C, Super-speciality building, Deenanath Mangeshkar Hospital and Research Centre, Erandawane, Pune 411004, Maharashtra, India.



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<http://www.dmhospital.org/research-aboutus>





DEENANATH MANGESHKAR HOSPITAL AND RESEARCH CENTRE, PUNE, M.S.,
INDIA

PATRON, **S**UPPORT and **D**IRECTOR/HOI

Dr. Dhananjay S. Kelkar

ANNUAL **R**EPORT 2018-19 – **C**ONTRIBUTIONS

- *Dr. Vaijayanti V. Pethe*
[Timelines, content and design]

- *Ms Aditi A. Deshpande and Mrs. Aditi A. Kulkarni*
[Data compilation and initial drafts – IHR program, Publications, Awards – and DNB data]

- *Dr. Shweta A. Chitharanjan*
[Data compilation and initial drafts – CTR program]

- *Dr Gauri A. Oka*
[Content check]





RESEARCH DEPARTMENT – OVERVIEW



DMHRC is a super-specialty, consultative, tertiary acute-care hospital with its own Research Department to encourage, facilitate and initiate in-house basic and translational research projects as well as sponsored clinical trial protocols related to a battery of human conditions and diseases. Various health-centric projects have been completed at DMHRC – and data has been published in peer reviewed national and international journals since its inception in 2001.

Each year, the Department of Research publishes an Annual Report – describing the clinical/biomedical research efforts, educational programs, highlighting events and activities of the past year, and recognizing awards/honors, conference presentations and research publications by DMHRC consultants and clinician researchers. 2018-19 was a productive year in our pursuit to improve research productivity as demonstrated through progressive accomplishments enlisted in various sections of this report.

I am pleased to release this report culminating the hard work of my staff, clinicians and researchers at DMHRC during the entire year that passed.

We continue to operate 3 arms of the Research Department under which health research is facilitated, coordinated, regulated, promoted – and implemented.

● SPONSORED RESEARCH –

The goal under this arm is to provide best opportunity for patient care today as well as going forward by undertaking national and globally-sponsored patient-centered clinical trials on drugs, biologicals and devices. With facilitation and regulation from Research Department, Clinical trial research is undertaken by consultants of DMHRC, specialized in diverse therapeutic areas, to test novel and potent therapies with a potential to likely change clinical practice towards better and more desirable patient outcomes. We currently have ~ 35 ongoing clinical trials that include testing of battery of target-based anti-neoplastics, anti-hyperglycemics, antibiotics, antivirals, cardiovascular agents, immunomodulatory agents and devices. We have elaborated the clinical trial research program in sponsored research section of this report. We would like to mention that before the feasible trials are undertaken by consultants, it is mandatory that Project investigators pass them through review process by SAC and IEC of DMHRC. Only SAC and EC approved trial protocols are permitted to be implemented at specified trial sites at the hospital.

● IN-HOUSE RESEARCH –

The second major arm of the Research Department is to encourage and invite in-house basic, clinical, biomedical and translational research projects in diverse therapeutic areas. About 40 projects were submitted by clinician researchers during this year that were supported by intramural and extramural funding. We believe the investigations usually have the basic objective of describing and quantifying disease problems and of examining correlation, if any, between serological, tissue biomarkers, underlying conditions with disease etiology, diagnosis, progression, prognosis and patient outcome. The collaborative and single centre projects included diverse





themes listed in “In-house research” section of this report indicated with status of each undertaken study.

● **RESEARCH PROJECTS UNDERTAKEN UNDER DNB PROGRAM –**

The Department of Academics at DMHRC takes the responsibility of DNB research. The third arm of research at DMH includes projects undertaken by DNB (Diplomate of National Board) students under the supervision of investigators of DMHRC. 55-60 students enrolled in the DNB program annually in about 22 departments accredited by NBE. After successful completion of the project(s), DNB degree is awarded by the National Board of Examinations (NBE) – an autonomous academic body under the Ministry of Health and Family Welfare, Government of India. We enlist the projects undertaken in “DNB research” section of the annual report.

● **OUR RESEARCH REVIEW COMMITTEES –**

There is no change in our committees. The information below is retained for new readership.

We continue to operate with internal scientific committee (SAC) and research ethics board (IEC), both of which function under the umbrella of the Research Department. Members of both committees follow definitive management guidelines, operate under defined institutional policies and are selected based on merit and contributions in academic, scientific and clinical areas. Details of members are presented in our EC SOP document, which is revised, as appropriate.

As per the regulatory requirements, the Institutional Ethics Committee of DMHRC has been registered with DCGI, under the Central Drugs Standard Control Organization, (CDSCO), New Delhi. We are also pleased to announce that – as per a new national mandatory regulation in 2016-17 for conduct of clinical trial research – the Ethics Committee of DMHRC received accreditation from NABH, New Delhi, India, early 2018.

As well, we continue to maintain our SIRO recognition from DSIR, New Delhi, India for conduct of in-house research at DMHRC.

We sincerely acknowledge timely, necessary and relevant content help received from industrious staff of various departments and research consultants at DMHRC towards the preparation of this report.

Dr Vaijayanti V. Pethe
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“Leading the way to the future of personalized medicine through meticulous health research -and best practices at DMHRC”





MISSION –

Our mission is to promote scientifically sound and ethical health research in the best interest of patient care

VISION –

Our vision is to advocate and deliver health research to high degree of merit and quality for the benefit of patients at large.

DEPARTMENTAL LEADERSHIP AND STAFF

Patron, support and Director/HOI – Dr. Dhananjay S. Kelkar (2001)

Assistant Director, Research – Dr. Vaijayanti V. Pethe (2013)

In-charge, In-house research program (IHR) – Dr. Gauri A. Oka (2014)

In-charge, Clinical trial research program (CTR) – Dr. Shweta A. Chitharanjan (2002)

Research Staff -

Research Assistant-Documentation –
Ms Jiteshri Raut (2017)

In-house research program –
Mrs Aditi Kulkarni, (Research Associate, 2007)

Ms Sonal Kamble, (Research Assistant, 2016)

Ms Aditi Deshpande, (Research Assistant, 2017)

Dr. Amrita Prayag (Associate Consultant, 2018)

Dr. Sonu Hadke (Research Associate, 2019)

Ms. Pooja Uchale (Research Assistant, 2019)

Sponsored research program –
Dr Deepali Patil, (Clinical Research Coordinator, 2015)

Dr Smita Sawant, (Clinical Research Coordinator, 2015)





Dr Asmita Shembekar, (Clinical Research Coordinator, 2017)

Mrs Snehal Jadhav, (Clinical Research Coordinator, 2017)

Dr Tejashree Patole, (Clinical Research Coordinator, 2017)

Ms Madhura Shirolkar, (Clinical Research Coordinator, 2018)

Dr. Kirti Jalkote, (Clinical Research Coordinator, 2019)

EC member Secretary –

Col Jayashinha C. Pendse (2002)

MPW -

Mr Sandeep Bhosale (Multi Purpose Worker) (2007)





TABLE OF CONTENTS

1. **O**ur mandatory registrations and accreditations for in-house research, clinical trial research and DNB thesis
2. **P**ublications
3. **B**ook chapters
4. **P**odium/Abstracts/Poster presentations in national and international conferences and recipients of research awards
5. **T**raining, CMEs and educational events
6. **I**n-house research program – investigator initiated research
 - A] Status on projects reviewed
 - B] Closed-out Projects
7. **P**atient-centered Clinical trial research program – Pharma-sponsored research
8. **D**NB thesis program – ongoing and NBE accepted projects





OUR REGISTRATIONS/ACCREDITATIONS FOR IN-HOUSE, CLINICAL TRIAL RESEARCH – AND DNB DEGREE RESEARCH PROGRAM

IN-HOUSE RESEARCH –

We are granted SIRO registration from DSIR with renewal from April 2017 through March 2020.

CLINICAL TRIAL RESEARCH –

A] Our IEC registration validity from DCGI (CDSCO, New Delhi) runs from April 2019 through March 2022 [Re-Registration number – ECR/15/Inst/Maha/2013-RR19]

B] The Ethics Committee of DMHRC has been granted accreditation from NABH –

The validity of accreditation runs from January 21th 2018 through January 20th 2021

DNB THESIS RESEARCH –

We have 22 departments that have been accredited by National Board of Examinations, New Delhi.

The list of departments is included in Appendix 22 of SOP version 17, effective from May 2019.



SELECTED PUBLICATIONS –

1. **Bapaye A.** *Third-space endoscopy - can we see light at the end of the tunnel?* Endoscopy; November 2018; 50:1047–8.
2. **Bapaye A, Bharadwaj T, Mahadik M, Ware S, Nemade P, Pujari R, et al.** *Per-rectal endoscopic myotomy (PREM) for pediatric Hirschsprung's disease.* Endoscopy August 2018; 50:E644–5.
3. **Bapaye A, Bharadwaj T, Mahadik M, Ware S, Nemade P, Pujari R, et al.** *Correction: Per-rectal endoscopic myotomy (PREM) for pediatric Hirschsprung's disease.* Endoscopy; August 2018;50:C9.
4. **Cecconi M, Hernandez G, Dunser M, Antonelli M, Baker T, Bakker J, Jog S et al.** *Fluid administration for acute circulatory dysfunction using basic monitoring: narrative review and expert panel recommendations from an ESICM task force.* Intensive Care Med. January 2019;45(1):21-32.
5. **Coopersmith CM, De Backer D, Deutschman CS, Ferrer R, Lat I, Jog S et al.** *Surviving sepsis campaign: research priorities for sepsis and septic shock.* Crit. Care Med. July 2018 ;44:1400–26.
6. **Cortegiani A, Madotto F, Gregoretti C, Bellani G, Laffey JG, Pham T, Jog S et al.** *Immunocompromised patients with acute respiratory distress syndrome: secondary analysis of the LUNG SAFE database.* Crit. Care June 2018;22:157.
7. **Dave JR, Dewle AM, Mhaske ST, Phulpagar PT, Mathe VL, More SE, Jog AJ et al.** *Hydroxyapatite nanorods loaded with parathyroid hormone (PTH) synergistically enhance the net formative effect of PTH anabolic therapy.* Nanomedicine. January 2019;15(1):218–30.
8. **Gandhi S, Gupta S, Rajopadhye G.** *A comparison of phonatory outcome between trans-*



- oral CO₂ Laser cordectomy and radiotherapy in T1 glottic cancer. Eur. Arch. Otorhinolaryngol. November 2018;275:2783–6.
9. **Godbole KG**, Ramachandran A, Karkamkar AS, Dalal AB. *Compound Heterozygosity for Hb Alperton (HBB: c.407C>T) and IVS-I-5 (G>C) (HBB: c.92+5G>C) Mutations Presenting as a Moderate Anemia in an Indian Family*. Hemoglobin. April 2018;1–2.
10. **Kulkarni V**, Kulkarni R, Parchure R. *Neurosymptomatic cerebrospinal fluid escape in HIV-2: a case report*. Int. J. STD AIDS. June 2018;29:726–8.
11. **Murthy R**, Umesh M. *Magnetic ocular prosthesis for shallow contracted socket*. Indian J. Ophthalmol. September 2018; 66:1372–3.
12. Parikh PM, Aggarwal S, **Hingmire S**. *Editorial*. South Asian Journal of Cancer: April-June 2018;7(2) :67-68.
13. Pegram MD, Bondarenko I, Zorzetto MMC, **Hingmire S**, Iwase H, Krivorotko P V, et al. *PF-05280014 (a trastuzumab biosimilar) plus paclitaxel compared with reference trastuzumab plus paclitaxel for HER2-positive metastatic breast cancer: a randomised, double-blind study*. Br. J. Cancer; January 2019;120(2):172-182.
14. Ramchandani M, Nageshwar Reddy D, Nabi Z, Chouhan R, **Bapaye A**, Bhatia S, et al. *Management of Achalasia cardia: Expert consensus statements*. J. Gastroenterol. Hepatol. December 2018;33:1436–44.
15. Shinde P, Fernandes S, **Melinkeri S**, Kale V, Limaye L. *Compromised functionality of monocyte-derived dendritic cells in multiple myeloma patients may limit their use in cancer immunotherapy*. Sci. Rep. April 2018;8:5705.
16. Shinde P, Khan N, **Melinkeri S**, Kale V, Limaye L. *Freezing of dendritic cells with trehalose as an additive in the conventional freezing medium results in improved recovery after cryopreservation*. Transfusion. February 2019;59(2):686-696.
17. Singhal T, Kumar A, Borade P, Shah S, **Soman R**. *Successful treatment of C. auris shunt*



infection with intraventricular caspofungin. Med. Mycol. Case Rep. August 2018;22:35–7.

18. **Janorkar S.** *Intravascular Ultrasound-Guided Percutaneous Coronary Intervention of Isolated Critical Ostial Stenosis of Unprotected Left Main Coronary Artery in Acute Coronary Syndrome. J. Am. Coll. Cardiol. April 2018;71:S110–1.*
19. **Udare A, Desai S, Chandorkar A, Joshi S.** *Middle-aged female with palpable swelling over the abdominal wall. Skeletal Radiol. April 2018; 47(4):597–8.*
20. **Nikumbh T, Bhandarwar A, Sanap S, Wagholikar G.** *Laparoscopic management of intra-hepatic gallbladder perforation. J Minim Access Surg. January 2019; [EPub ahead of print]*
21. **Rahatgaonkar V, Wakankar A, Oka G, Kamble S.** *Menstrual disorders and treatment seeking behaviour of adolescents. Int J Community Med Public Heal. September 2018;5(10):4248–53.*
22. **Oka GA, Ranade AS, Kulkarni AA.** *Back pain and school bag weight - a study on Indian children and review of literature. J Pediatr Orthop B. February 2019; [Epub ahead of print]*
23. **Gandhi S, Gupta S, Bhowmick N, Pandurangi A, Desai V.** *Autologous Fat Augmentation in Post Type III Cordectomy Patients. Indian J Otolaryngol Head Neck Surg. November 2018. [EPub ahead of print]*
24. **Modak R, Madikattu S, Kulkarni M, Damle R, Swami A, Chavhan S, et al.** *Operative management and radiological outcome of sacroiliac joint fractures and dislocation: A cross sectional study. Int J Orthop Sci. 2018;4(1):328–30.*
25. **Madilattu S, Modak R, Kulkarni M, Kamat N, Chavhan S, Swami A.** *A descriptive study of arthroscopy assisted anterior cruciate ligament reconstruction and evaluation of its functional outcome using Lysholm score. Int J Orthop Sci. 2018;4(1):331–4. 9.*
26. **Birole U, Ranade A, Oka G** *Interlocking nails: Indian or imported? A study of 131 patients. Journal of Trauma and Orthopedic Surgery. 2018;13(1):18-20.*
27. **Mahalle N, Bhide V, Greibe E, Heegaard CW, Nexo E, Fedosov SN, et al.** *Comparative*





*Bioavailability of Synthetic B12 and Dietary Vitamin B12 Present in Cow and Buffalo Milk:
A Prospective Study in Lactovegetarian Indians. Nutrients. February 2019;11(2).*

28. Godbole GP, Oka GA. *No scalpel vasectomy: a cross-sectional study of knowledge, attitude and practice of gynecologists. Int J Reprod Contracept Obstet Gynecol.2019 Mar;8(3):1149-1154*





BOOK CHAPTERS –

1. Dr. Ashish Ranade (Pediatric Orthopedics)

- I. **Ranade AS**, Belthur M. Poliomyelitis. Medscape Drugs & Diseases. Updated June 20, 2018. Available at: <https://emedicine.medscape.com/article/1259213-overview>
- II. Belthur MV, **Ranade AS**. Humerus: Essential tips, techniques and pearls, page 317-330. In – Herzenberg JE (Ed). The Art of Limb Alignment: Taylor Spatial Frame, Sinai Hospital of Baltimore, 2018
- III. **Ranade A**. Supracondylar humerus fracture pinning, pages 18-22. In – Hardikar SM, Shintre SS, Panchnadikar (Ed) Hardikar's Orthopaedic Operations: Text & Atlas, Jaypee Brothers 2019.

2. Dr. Supriya Phanse Gupte (Pediatric Endocrinology)

- I. Normal growth and physical development in adolescence
- II. Hypopituitarism and disorders of Growth IGF-1 Axis

In IAP Textbook of Pediatric Endocrinology. Editor in chief Dr. Vaman Khadilkar. Chapter 2.1 and 7, 1st ed. New Delhi, Jaypee Brothers Medical Publishers (P) Ltd. 2019.



ABSTRACTS OF PUBLISHED PAPERS – SAC / EC Approved projects

1. **Godbole GP, Oka GA.** *No scalpel vasectomy: a cross-sectional study of knowledge, attitude and practice of gynaecologists.* Int J Reprod Contracept Obstet Gynecol 2019;8:1149-54.

Background: In spite of no scalpel vasectomy (NSV) being cheaper and safer, female sterilizations account for the majority of sterilizations performed worldwide. Research has focused more on the “demand” and less on the “provider” side. Gynaecologists can be front-runners for the cause of population control in India. Hence, authors decided to estimate the knowledge of Gynaecologists, their attitude and prevalent practice of NSV. **Methods:** Cross-sectional study. Interviewer-administered questionnaire used for face-to-face data collection from gynecologists registered with the Pune Obstetric and Gynecological Society. **Results:** Out of 447 gynecologists, 158 (35.3%) were males and 289 (64.7%) females. Mean age was 46.3 years \pm 12.1 years, (range 24-80 years). Only 14 (3.1%) were trained in performing NSV. Only a minority knew about type of Anaesthesia used (1.8%) and number of accesses needed (48.1%) for NSV. Only 40.7% and 18.1% knew about time to resume sexual activity and number of ejaculations to be covered by additional contraceptives after NSV respectively. More than half [258 (57.7%)] were willing to undergo training in NSV. Among those unwilling for training, female and older gynecologists (≥ 40 years) significantly outnumbered male and younger gynecologists (76.5% Vs. 23.5%; $p=0.000$ and 78.8% Vs. 21.2% respectively; $p=0.000$). Majority (79.9%) referred a couple willing for NSV to surgeons or urologists or advised female sterilization (17%). **Conclusions:** Knowledge of gynecologists about NSV was inadequate. Minority were trained in performing NSV. Male and younger gynecologists were willing to undergo training in NSV. Most preferred practices were referring couples elsewhere or advising female sterilization.

2. **Rahatgaonkar VG, Wakankar AH, Oka GA, Kamble SV.** *Menstrual disorders and treatment seeking behaviour of adolescents.* International Journal of Community Medicine and Public Health. 2018;5(10). doi.org/10.18203/2394-6040.ijcmph20183886.

Background: Menstrual abnormalities are a major gynaecological problem faced by adolescent girls leading to morbidity that may have an adverse effect on their school attendance. The objective of the study was to determine prevalence of menstrual disorders in girls aged 10-19 years and to study their treatment-seeking behaviour. **Methods:** We conducted a cross-sectional study on 592 girls in the age group of 10 to 19 years attending schools in Pune city during January 2016 to December 2016. Permission was sought from school authorities. Girls 10-17 years were included after obtaining parental consent. For 18 and 19 year olds, informed consent was taken from the girls themselves. Demographic information, height, weight and characteristics of menstrual period were noted. **Results:** Majority girls (36%) were in age group 12.1-14 years. Most prevalent menstrual disorder was painful menses reported by 70% of girls, followed by heavy menstrual bleeding (46%) and cycle irregularity (22%). All menstrual disorders were most commonly prevalent in the age group of 14.1 to 16 years. Proportion of girls visiting a doctor and taking medications for painful



menses was 26.7% and 16.5% respectively, for heavy menstrual bleeding was 25.7% and 16.5% respectively and for cycle irregularity was 33% and 16.5% respectively. No association was found between mother's education and treatment seeking behaviour for menstrual disorders. **Conclusions:** In spite of high prevalence of menstrual disorders, only a minority of the adolescents seek expert advice. This underscores the need for creating awareness among girls, mothers and teachers and developing a screening tool to identify girls who could benefit by further investigation and follow-up.

3. **Birole U, Ranade A, Oka G, Kulkarni A.** *Interlocking nails: Indian or imported? A study of 131 patients.* Journal of Trauma and Orthopaedic Surgery. 2018;13(1):18-20.

Background: Currently, intramedullary nails used for displaced mid-shaft fractures of tibia and femur are either made locally or imported. For a majority of Indian patients, cost of imported implants could be a constraint. In spite of their extensive use, there is no published data comparing their performance with respect to bony union and complication rates. **Objective:** To compare bony union and post-operative complication rates when Indian and imported nails are used for midshaft fractures of tibia and femur. **Methods:** Retrospective analysis of patients having undergone reamed antegrade interlocking nailing for mid-shaft (AO Type A1 for femur and OTA type A for tibia) closed femoral or tibial fractures between January 2005 and December 2014. Adult patients with a minimum follow-up of 1 year after the index surgery were included. **Results:** Records of 131 patients (137 surgeries) were analyzed. There were 103 males and 28 females with mean age 36.9 ± 15.6 years (range 18-76 years). High velocity injuries had contributed to 105 (76.6%) fractures. There were 92 (67.2%) tibial mid-shaft fractures and 45 (32.8%) femoral mid-shaft fractures. Indian nails were used in 64 (46.7%) and imported nails in 73 (53.2%) surgeries. Significantly more femoral fractures were treated using imported nails as compared to tibial fractures (68.9% Vs 45.7%; $p < 0.005$). Bony union was slightly, but not significantly delayed in the imported nails group for both fractures. No rod breakage, breakage of locking bolt or revision surgery was found in either group. No statistically significant association found between type of implant and radiological non-union. **Conclusion:** Both, Indian and imported interlocking nails yield similar radiological outcome.

4. **Gandhi S, Gupta S, Rajopadhye G.** *A comparison of phonatory outcome between trans-oral CO₂ Laser cordectomy and radiotherapy in T1 glottic cancer.* Eur. Arch. Otorhinolaryngol. November 2018;275:2783–6.

Background: Early glottic carcinoma, i.e. T1 stage, can be treated using trans-oral surgery, radiotherapy, or partial open surgery. Trans-oral laser (TOL) surgical techniques and Radiotherapy (RT) have undergone significant advancement in the past few years leading to a decrease in open procedures. Various studies have been published comparing voice quality after TOL surgery and RT. There are few works which consider patients' opinions, i.e. subjective parameters regarding functional voice quality post treatment. This study uses both subjective and objective parameters to evaluate phonatory outcome of both treatment options. **Methods:** Phonatory outcomes were





measured in patients who underwent RT and CO₂ Laser excision for early laryngeal cancer. VHI, GRBAS and MDVP were used to measure the vocal outcome of treatment modality after 1 year of cancer-free survival. A comparison was then made between the outcomes in the two groups. **Results:** Superior vocal outcomes in G, R and S criteria of the GRBAS scale, a better VHI index, and better jitter, shimmer and NHR were found in patients who underwent CO₂ laser excision as compared to patients who underwent RT. Other parameters were comparable between the two groups. **Conclusion:** TOL surgery provides excellent vocal outcome as compared to RT in management of early glottic cancer and should be considered as the first line of management for the same.

5. Mahalle N, Bhide V, Greibe E, Heegaard CW, Nexo E, Fedosov SN, Naik SS et al. *Comparative Bioavailability of Synthetic B12 and Dietary Vitamin B12 Present in Cow and Buffalo Milk: A Prospective Study in Lactovegetarian Indians*. *Nutrients*. February 2019;11(2).

We assessed improvements in the vitamin B12 status of Indian lactovegetarians receiving four weeks' supplementation with natural B12 in milk versus cyano-B12 in capsules. Three groups (n = 22, 23, 22) received daily oral doses of cyano-B12 (2 × 0.76 µg) or milk (2 × 200 mL) from a cow or buffalo (amounting to B12 ≈ 2 × 0.76 µg). Their blood was examined at baseline and each following week. The baselines (median (min/max)) indicated a low B12 status: plasma B12 (116(51/314)) pmol/L, holotranscobalamin (holoTC) (30(7/119)) pmol/L, total homocysteine (Hcy) (24(10/118)) µmol/L, methylmalonic acid (MMA) (0.58(0.15/2.2)) µmol/L and combined B12 index (cB12) (-1.32 - (-3.12/+0.29)). Shifts from the baselines (B12, holoTC, cB12) and ratios to the baselines (Hcy, MMA) were analyzed over time. The cyano-B12 treatment gave more total B12 in plasma at week one (+29 pmol/L, p = 0.004) but showed no further increase. Other biomarkers changed more comparably between the three groups (p ≥ 0.05): holoTC showed a transient spike that leveled off, Hcy finally decreased to 0.8 × baseline, while MMA showed marginal changes. The combined indexes improved comparably (p = 0.6) in all groups (+0.2(-0.3/+0.9), p ≤ 0.002). In conclusion, the tested formulations similarly improved B12 status, but did not normalize it.





Research Projects Presented at National and International Conferences

1. **Palsule A, Kulkarni A, Jathar K.** *Quality of life in patients affected by age-related macular degeneration (ARMD).* Presented at **GERICON 2018, State conference of Indian Medical Association, July 2018, Pune**
2. **Oka Abhijit A, Oka Gauri A.** *The enigma of early progesterone rise: Is it associated with the type of gonadotropin used?* Presented at **23rd annual conference of Indian Society of Assisted Reproduction, April 2018, Kolkata.**
3. **Kalane SU, Rajhans AA, Joshi RV, Devaskar U, Oka GA.** *Early minimum oral feedings with donor breast milk (DBM) or expressed breast milk (EBM) enhances feeding tolerance and may shorten NICU stay: Single center RCT in the preterm.* Presented at **Pediatric Academic Societies, May 2018, Toronto**
4. **Mankad P, Kshirsagar J, Bedekar A.** *Correlation of observed in-hospital mortality with predicted in-hospital mortality by POSPOM score.* Presented at **15th International Conference on Geriatric Care and Gerontology, October 2018, Pune. Awarded first prize.**
5. **Ranade AS, Oka GA, Goyal N.** *Lower Limb Alignment in Indian Children: Are We Different? A study of radiographic parameters on full-length standing radiographs.*
 - Presented at **Silver Jubilee Conference of Pediatric Orthopedic Society of India (POSICON), Jan 2019, Mumbai.**
 - Also presented at **POSAC 2019 (Pune Orthopaedic Society's Annual Conference), March 2019, Pune**
6. **Gaurav Ardawatia, Debkumar Majumdar, Ashish Ranade, Gauri Oka, Anurag Daxini.** *ALARA isn't it alarming: Interim results of nationwide survey analyzing attitudes and practices of orthopaedic residents regarding radiation safety. (Abstract of "A cross-sectional study exploring knowledge, attitudes and practices of orthopedic residents regarding radiation safety").* Selected for **Best paper category** – Podium presentation – Presented in March 2019 at POSAC 2019 (Pune Orthopaedic Society's Annual Conference)



7. Dr. Anand Shinde [Obstetrics and Gynecology]

Novel Leukocyte Esterase test for semen. 23rd Annual Congress of Indian Society for Assisted Reproduction, (ISAR 2018), Science city and ICT Sonar, Kolkata. 19th – 22nd April, 2018. (Author: Dr. Anand Shinde)

8. Dr. Shilpa Kalane [Neonatology]

A. Antenatal betamethasone for preventing respiratory complications in newborns after cesarean section at term - A quasi randomized controlled trial. 38th Annual convention of national Neonatology Forum conference (NEOCON). 2018. Varanasi. 13th -16th December 2018. (Author: Dr. Shilpa Kalane, Dr. Girish Godbole, Dr. N Gore)

B. Effectiveness of short binasal prongs versus face mask for initiation of early CPAP in extramural preterm during neonatal transport in preventing mechanical ventilation. (Author: Dr. W Kazi, Dr. Shilpa Kalane, Dr. Rajan Joshi)

C. Oil massage by mothers in preterm neonates improves growth and breastfeeding rates at term corrected gestation age – A prospective comparative study. (Authors – Dr. N Lingayat, Dr. S Kalane, Dr. A Rajhans)

[B] and [C] presented at IAPNEOCON, Pune, 27th -30th September 2018.



9. Dr. Aratee Palsule [Ophthalmology]

Quality of life in patients with age related macular degeneration. GERICON 2018, State conference of Indian Medical Association, Pune. July 2018. (Authors: Dr. Aratee Palsule Dr. Ketan Jathar and Ms. Aditi Kulkarni)

10. Dr. Prerana Mankad [Anesthesia] received 1st Prize in Faculty category for scientific paper,

Correlation of observed in-hospital mortality with predicted in-hospital mortality by POSPOM score. 15th International Conference on Geriatric Care and Gerontology, Pune. October 2018. (Authors – Dr. Prerana Mankad, Dr. Amruta Bedekar, Dr. Sujit Saraf, Dr. Jitendra Kshirsagar and Ms. Aditi Kulkarni)

11. Dr. Ashish Ranade [Pediatric Orthopedics]

A. Lower Limb Alignment in Indian Children: Are We Different? A study of radiographic parameters on full-length standing radiographs. Silver Jubilee Conference of Pediatric Orthopedic Society of India (POSICon), Mumbai. Jan 2019.

Also presented at POSAC 2019 (Pune Orthopaedic Society's Annual Conference), March 2019, Pune (Authors: Dr. Ashish Ranade and Dr. Gauri Oka)

B. ALARA- isn't it alarming: Interim results of nationwide survey analysing attitudes and practices of orthopaedic residents regarding radiation safety. Selected under the **'Best Paper'** category - Podium presentation at POSAC 2019 (Pune Orthopaedic Society's Annual Conference), March 2019 (Authors: Dr. Ashish Ranade, Dr. Gaurav Ardawatia, Dr. Gauri Oka)

12. Dr. Namita Mahalle [Biochemistry]

Comparative bioavailability of synthetic B12 and dietary vitamin B12 present in cow and buffalo milk: A prospective study in lacto vegetarian Indians. ACBICON 2018 Conference, Kala Academy, Goa. 25th -27th October 2018.

13. Dr. Sachin Gandhi [ENT]

A. Understanding the mucosal waves SAARAL 2018 - TN ENT CONFERENCE – Madurai. Aug 2018

B. Bilateral Cord Palsy: Surgical options

C. Early Glottic Cancers: Is Laser useful

D. Transoral Laser Surgery in Early Glottic Cancer. 14th Asia Oceania. ORL-HNS Congress Jan 2019. Hyderabad.

B and C presented at Laryngology Summit Goa, Sept 2018.

14. Dr. Vikram Oak [ENT]

Extracorporeal Septoplasty – State ENT Conference, Nasik, December 2018.



15. Dr. Nilanjan Bhowmick [ENT]

- A. Dysphagia a new perspective. CME – Delhi. April 2018
- B. FEES (Fiber optic Endoscopic Evaluation of Swallowing). Laryngology Summit 2018. Goa. September 2018
- C. Dysphagia an Update. AOI CME – Mumbai. February 2019

16. Dr. Anushree Prabhakaran [Hemat-oncology]

Role of PET CT in peripheral T cell lymphoma and brentuximab role in PTCL. Best of Best lymphoma summit, Kolkata, India. June 2018.

17. Dr. Amol Bapaye [Gastroenterology]

- A. Endoscopic Snare Papillectomy (ESP) for ampullary tumours – single-center experience. (Author: Dr. Amol Bapaye, Dr. Nachiket Dubale and Dr. Rajendra Pujari)
 - B. Endoscopic management of early foregut neuroendocrine tumors. (Author Dr. Amol Bapaye, Dr. Rajendra Pujari, Dr. Suhas Date and Dr. Harshal Gadhikar)
 - C. Development and initial validation of a universal classification for colo-rectal polyps and neoplasia (unicorn). (Author: Dr. Amol Bapaye)
 - D. EUS guided dilatation of strictured bilio-enteric anastomoses (BEA). (Author: Dr. P Nemade, Dr. S Kumar Korrapati, Ar. M Mahadik, and Dr. A Bapaye)
 - E. Per rectal endoscopic myotomy (PREM) for infantile hirschsprung's disease. (Author: Dr. A Bapaye, Dr. M Mahadik, Dr. S Kumar Korrapati, Dr. P Nemade, Dr. R Pujari, Dr. S Date and Dr. N Dubale)
 - F. Endoscopic management of colonic intussusception by ESD- case series. (Author: Dr. S Kumar Korrapati, Dr. M Mahadik, Dr. P Nemade and Dr. A Bapaye)
 - G. Endoscopic resection of duodenal lesions and a single center experience (Author: Dr. M Mahadik, Dr. T Bharadwaj, Dr. S Kumar Korrapati, Dr. P Nemade, Dr. R Pujari, Dr. S Date and Dr. A Bapaye)
- A, B and C presented at 26th United European Gastroenterology Week Vienna, Austria. October 2018.**
- D, E, F and G presented at ESGE Days 2018– Towards extreme endoscopy. Georg Thieme Verlag KG Stuttgart, New York, 21 April 2018**

18. Dr. Amol Rege [Spine surgery]

- A. Applied Surgical anatomy of Thoracolumbar spine
- B. Pyogenic Discitis
- C. Lytic Spondylolisthesis Overview
- D. TLIF
- E. Case Presentation: Odontoid fracture and its management overview
- F. Case presentation: Metastatic spinal tumor
- G. Overview of photic deformity principles and treatment





- H. Sacrum fracture: evaluation and treatment
- I. Applied anatomy of thoracic spine and screw insertion - tips & tricks
- J. Spinal Tuberculosis. MOACON 2018, Pune. November 2018.
- K. Thoracic myelopathy - dorsal disc
- L. End of empirical treatment for Tubercular Spinal Infection: Combating MDR-TB epidemic with Drug Sensitivity testing (Author: Dr. Shaishav Shah and Dr. Amol Rege)

A, B, C and D presented at AOSpine Principles Course, Colombo, Sri Lanka. 23rd- 24th June 2018.

E, F, G, H and I presented at AOSpine Principles Course, Katmandu, Nepal, 26th -27th October 2018.

K and L presented at Association of Spine Surgeons of India Conference (ASSICON 2019), Ahmedabad, 24th – 27th January 2019.

19. Dr. Vishnu Unnithan [Department of Shoulder and Sports Injury] received Gold medal for “Best paper” category.

Ultrasound guided Targeted High Volume Injection (HVI) of the Rotator Cuff Interval versus Supervised Physical therapy for Primary Adhesive Capsulitis of Shoulder - A Randomized Control Study. 11th Annual IAS meeting, Cochin, Sept 2018.



TRAINING, CMES AND EDUCATIONAL EVENTS

Topic	Date	Speaker
<p>Biomedical research and innovation – Opportunities for collaboration between clinicians and technologists.</p> <p>Organizers – Dr Gauri A Oka and Dr Vaijayanti V Pethe</p>	03 March 2019	<p>Patron and support – Dr. Dhananjay S. Kelkar</p> <p>Speakers – Dr. Gauri A. Oka Dr. Vaijayanti V. Pethe</p> <p>Key speaker – Dr. V. Premnath, BTech (IIT Bombay), PhD (MIT, USA) Head, NCL Innovations and Director, Venture Centre, Pune</p> <p>Panel discussion – entrepreneur bio-technologists and team members from Venture Centre</p> <p>Logistics and coordination – Mrs Aditi A. Kulkarni Ms Aditi Deshpande Mrs Sonal Kamble</p>
NABH surveillance visit preparation for EC accreditation - awareness and training - Part II	01 March 2019	<p>Dr Vaijayanti V. Pethe – Meeting agenda</p> <p>EC monitoring updates – Ms Jiteshri V. Raut Dr Shweta A. Chitharanjan All members participated in the discussion</p>
NABH surveillance visit preparation for EC accreditation - awareness and training - Part I	25 January 2019	<p>Dr Vaijayanti V. Pethe – Preamble presentation and round table discussion with EC members. All members participated in the discussion</p> <p>Preparation of training documents – Dr Shweta A. Chitharanjan Ms Jiteshri V. Raut</p>
Protocol writing for DNB students	04 December 2018	Dr Gauri A. Oka (In-charge, In-house research, RD)
Research overview and updates to Management and managers of DMHRC	29 November 2018	Dr Vaijayanti V. Pethe – Structure and functioning of RD, DMHRC – and at-a-glance overview of IHR, CTR and



		<p>translational research endeavors by Consultants of DMHRC</p> <p>Dr Gauri A. Oka – Landscape of In-house research at DMHRC</p> <p>Data compilation – Dr Shweta A Chitharanjan, CTR data Mrs Aditi A Kulkarni, IHR data</p>
<p>DMHRC- ERI meet - Ethics Symposim – Awareness program on ICH-GCP (Revision 2), Clinical research regulations and NABH process. Organizers – Dr. Pethe V. (DMHRC, Pune) and Dr. Ghooi R. (ERI, Pune)</p>	<p>25 November 2018</p>	<p>Patron and Support – Dr. Dhananjay S. Kelkar (DMHRC)</p> <p>Program moderator – Dr Ravindra Ghooi (ERI)</p> <p>Dr Dhananjay S. Kelkar – Opening meeting remarks (DMHRC) Dr Chetan Deshmukh – ICG-GCP guidelines with clinical scenarios (DMHRC) Dr Ravindra Ghooi – Awareness on Drug and Clinical trial rules_2018 (ERI, Pune) Dr Arun Bhatt – NABH accreditation process Dr Vaijayanti V. Pethe – Speaker introduction and vote of thanks (DMHRC)</p> <p>Co-ordination, registration and logistics – Dr Shweta Chitharanjan and Ms Jiteshree Raut (DMHRC)</p>
<p>EC SOP - Revision of Version 15 – and Training on Version 16</p>	<p>13 November 2018</p>	<p>Dr Vaijayanti Pethe - round table discussion with EC members on SOP updates All members participated in the discussion</p> <p>Dr Shweta Chitharanjan - Preparation of initial draft</p> <p>Ms Jiteshree Raut - Training evaluation preparation</p>
<p>Training for Consultants, CRCs and research staff - "Regulations in Clinical Trial Research – Approach to culture of compliance" Organizers – Dr Shweta A. Chitharanjan and Dr Vaijayanti V. Pethe</p>	<p>13 July 2018</p>	<p>Saurabh Naik, Strategic Site Relationship Manager, IQVIA Amit Choudhary, Clinical Operations Quality Manager, IQVIA</p>





Updates from ERI workshop, Ruby Hall, Pune (19 May 2018) Topics included ICH-GCP and regulatory updates.	29 June 2018	Dr Vaijayanti V. Pethe – All EC members participated in the discussion.
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Department Research Meetings –

DATE	DEPARTMENT
18 th December 2018	Department of Medicine – Dr. Amrita Prayag and Dr. Gauri Oka
8 th January 2019	Department of Dermatology – Dr. Amrita Prayag
22 nd January 2019	Follow up meeting – Department of Medicine – Dr. Amrita Prayag
12 th February 2019	Department of Oncology – Dr. Amrita Prayag
19 th February 2019	Follow up meeting – Department of Dermatology – Dr. Amrita Prayag
5 th March 2019	Follow up Meeting – Department of Oncology – Dr. Amrita Prayag
25 th March 2019	Department of Infectious Diseases – Dr. Amrita Prayag



IN-HOUSE RESEARCH AT DMHRC – PROJECTS SUBMITTED FOR REVIEW BY SAC/IEC AND THEIR STATUS – [IHR 265 TO 304; N =40]

S. No.	DMHRC protocol code	Project investigator	Department (s)	Project title	Status as of March 31, 2019
1.	IHR_2018_APR_VR_265	Dr. Veena Rahatgaonkar	Ob-gyn	A Comparative study of the efficacies of VIA /VILI aided by the Smart Scope™ and Pap smear test for screening for precancerous and cancerous lesions.	Ongoing
2.	IHR_2018_APR_MP_266	Dr. Malathi Panchawagh	Anaesthesia	A Comparative study to determine the efficacy of Pre- operative use of Benzydome gargles with intra -Cuff alkalinised lignocaine in decreasing severity of post-operative sore throat (POST) – a randomized controlled , observer blinded study	Ongoing
3.	IHR_2018_APR_SN_267	Dr. Sadanand Naik	Pathology	Vitamin D status and daily milk intake: an intervention trial	Ongoing
4.	IHR_2018_APR_SK_268	Dr. Shilpa Kalane	Pediatrics	Study to Compare bacteriological screening of donor human milk (DMH) before and after pasteurisation between kimie pasteurizer and HSC pasteurizer.	Study Closed
5.	IHR_2018_MAY_RT_269	Dr. Rucha Thorat	Pediatrics	Prospective Comparative interventional study to determine effect of parent centric multisensory intervention program on pre-term babies in NICU	Terminated
6.	IHR_2018_JUL_HG_270	Dr. Harshal Gadhikar	Gastro- enterology	Correlation between Fibroscan and non- invasive serological indices for assessment of fibrosis in Non Alcoholic fatty liver disease. (NAFLD)	Ongoing
7.	IHR_2018_JUL_AK_271	Dr. Arundhati Kanade	Ob-gyn	To study foetal growth and pregnancy outcome with special reference to maternal diet and stress.	Ongoing
8.	IHR_2018_JUL_AB_272	Dr. Ashish Babhulkar	Orthopedics	Post-operative management of pain relief by suprascapular nerve block by catheter placement in Arthroscopic rotator cuff repair surgery patients- A prospective study.	Ongoing
9.	IHR_2018_JUL_AB_273	Dr. Ashish Babhulkar	Orthopedics	Long term outcomes of shoulder hemiarthroplasty – A minimum 6 years follow up	Ongoing
10.	IHR_2018_JUL_AB_274	Dr. Ashish Babhulkar	Orthopedics	Comparative study of clinical tests for supraspinatus tendon tears.	Ongoing
11.	IHR_2018_SEP_AR_275	Dr. Archana Ranade	Physiotherapy	To establish normative reference values of spatial and temporal gait parameters in an Indian population	Ongoing



IN-HOUSE RESEARCH AT DMHRC – PROJECTS SUBMITTED FOR REVIEW BY SAC/IEC AND THEIR STATUS [CONTD, N =40]

S. No.	DMHRC protocol code	Project investigator	Department (s)	Project title	Status as of March 31, 2019
12.	IHR_2018_SEP_SK_276	Dr. Shilpa Kalane	Pediatrics	An observational study in 200 neonates, to collect skin reflectance spectrum in jaundiced and non-jaundiced neonates at the NICU, using a Thorlabs CCS100 Spectrometer and Embryo's LED based multispectral Red-Green-Blue (RGB) transcutaneous illumination system.	Closed out
13.	IHR_2018_SEP_PP_277	Dr. Pramod Patil	BILD Clinic	A retrospective data analysis to determine association between complications of type 2 diabetes mellitus (T2DM) and glucose levels and Drug regimes	Terminated
14.	IHR_2018_SEP_PS_278	Dr. Parag Sahasrabudhe	Plastic Surgery	Post coronary artery bypass grafting deep sternal Wound infections – Early versus delayed referral to plastic surgical unit	Ongoing
15.	IHR_2018_SEP_SP_279	Dr. Sumant Patil	Pediatrics	To compare the accuracy of two formulae used to predict the length of insertion of endotracheal tube in pediatric patients	Ongoing
16.	IHR_2018_SEP_AB_280	Dr. Ashish Bhabhulkar	Orthopedics	Reversal of preoperative muscle wasting in patients with large and massive rotator cuff tears repaired arthroscopically- A radiological study	Rejected
17.	IHR_2018_SEP_SP_281	Dr. Shirish Pathak	Orthopedics	Evaluation of rotator cuff healing postoperatively by ultrasound in patients with rotator cuff tears repaired arthroscopically and their effect on clinical outcome	Ongoing
18.	IHR_2018_SEP_DK_282	Dr. Dhananjay Kelkar	Oncology	Physiological and Psychological Effects of Chanting Gayatri Mantra on Healthy Population.	Ongoing
19.	IHR_2018_OCT_SJ_283	Dr. Sameer Jog	CCM	Immunogenetics of severe pandemic H1N1pdm09 infection	Ongoing
20.	IHR_2018_OCT_VJ_284	Dr. Varsha Jagtap	Pediatric Endocrinology	A Study to validate new Thyroid Stimulating Hormone (TSH) Screening device(μ -sure) against standard laboratory TSH values	Ongoing
21.	IHR_2018_OCT_SP_285	Dr. Sumeet Pitkar	Pediatrics	Prevalence of Ankyloglossia in infants and maternal awareness profile - A descriptive study	Ongoing



IN-HOUSE RESEARCH AT DMHRC – PROJECTS SUBMITTED FOR REVIEW BY SAC/IEC AND THEIR STATUS [CONTD, N =40]

S. No.	DMHRC protocol code	Project investigator	Department (s)	Project title	Status as of March 31, 2019
22.	IHR_2018_NOV_PP_286	Dr. Pramod Patil	BILD Clinic	A randomized controlled study to compare the effects of SUSHRUTA recommended exercise regime and conventional exercise (walking) on Type 2 diabetes.	Ongoing
23.	IHR_2018_NOV_AP_287	Dr. Aratee Palsule	Ophthalmology	To determine knowledge, attitude and practice (KAP) regarding diabetic retinopathy among diabetic patients in a multispecialty hospital: A cross sectional pilot study.	Closed-out
24.	IHR_2018_NOV_VP_288	Dr. Vijay Panchanadikar	Orthopedics	An observational study of Navigation in Orthopedic and fracture surgery accurate positioning of guide wire and implants.”	Ongoing
25.	IHR_2018_NOV_MD_289	Dr. Manisha Deshmukh	Medicine / Wound care clinic	A cross-sectional study to determine the prevalence of psychosocial factors like depression, anxiety and stress and social factors in patients with chronic wounds in a tertiary care hospital.	Ongoing
26.	IHR_2018_NOV_SN_290	Dr. Swapna Naik	Anesthesia	Prospective observational study to determine incidence of incidental awareness in patients undergoing surgery under General Anesthesia in our institute.	Ongoing
27.	IHR_2018_DEC_PP_291	Dr. Pramod Patil	BILD Clinic	Cross Sectional study to compare behavioral profile of patients with and without type 2 diabetes	Pending
28.	IHR_2018_DEC_DK_292	Dr. D. S. Kelkar	Onco Surgery	Is hemi-thyroidectomy adequate oncological treatment for low and intermediate risk well-differentiated thyroid cancer?	Ongoing
29.	IHR_2019_JAN_YK_293	Dr. Yogesh Karale	PICU	To determine prevalent practice of blood transfusion in children admitted in PICU at tertiary care hospital	Ongoing
30.	IHR_2019_JAN_PA_294	Dr. Pritee Adate	Anesthesia	Retrospective analysis to observe relevance of pre-procedure ACT (activated clotting time) in off-pump coronary artery bypass surgery (CABG)	Ongoing



IN-HOUSE RESEARCH AT DMHRC – PROJECTS SUBMITTED FOR REVIEW BY SAC/IEC AND THEIR STATUS [CONTD, N =40]

S. No.	DMHRC protocol code	Project investigator	Department (s)	Project title	Status as of March 31, 2019
31.	IHR_2019_FEB_SG_295	Dr. Sachin Gandhi	ENT	Phase I animal trial to study the role of stem cells in soft tissue regeneration of vocal fold scar in rabbits	Not under the purview of EC
32.	IHR_2019_FEB_SG_296	Dr. Suneel Godbole	Pediatrics	A randomized study to compare burden of stress with and without counselling in parents of children with Autism Spectrum Disorders [ASD].	Ongoing
33.	IHR_2019_FEB_SJ_297	Dr. Sujit Joshi	Pathology	An experimental study to develop a digital image processing technique for breast cancer detection	Ongoing
34.	IHR_2019_FEB_SG_298	Dr. Suneel Godbole	Pediatrics	A retrospective data analysis to determine association between Childhood Autism Rating Scale (CARS) and quadrants of Sensory Profile in children with Autism Spectrum Disorder [ASD]	Ongoing
35.	IHR_2019_FEB_AT_299	Dr. Anuj Tiwari	Medicine	To assess the correlation between Glycosylated Hemoglobin level (HbA1c) with the severity of Myocardial Infarction	Not considered for IEC
36.	IHR_2019_M AR_AT_300	Dr. Anup Tamhankar	Oncology	Can BRCA-1 IHC be used as a screening tool for evaluating BRCA mutation?	Ongoing
37.	IHR_2019_M AR_AP_301	Dr. Aartee Palsule	Ophthalmology	To determine knowledge, attitude and practice (KAP) regarding diabetic retinopathy among diabetic patients in a multispecialty hospital – A cross sectional study.	Ongoing
38.	IHR_2019_M AR_AP_302	Dr. Anil Patki	Dermatology	Epidemiological and clinical features of Psoriasis in a Tertiary Care Center in India	Ongoing
39.	IHR_2019_M AR_CD_303	Dr. Chetan Deshmukh	Oncology	Set up of Tissue repository and Bio- bank at DMHRC	Not considered for IEC
40.	IHR_2019_M AR_SS_304	Dr. Safal Sabale	ICU	Indian Intensive Care Case Mix and Practice Patterns Study [2018-19]. (INDICAPS – II)	Ongoing



IN-HOUSE RESEARCH AT DMHRC: CLOSED-OUT PROJECTS – [N =19]

S. No.	DMHRC Project Code	Project Investigator	Department	Title
1.	2015_APR_S N_167	Dr. Sadanand Naik	Pathology	Uptake of various forms and amounts of Vitamin B12 (IMPROVIT – Part I)
2.	2016_Feb_SN _185	Dr. Sadanand Naik	Pathology	Long term uptake study of 3.0 µg of Hydroxo Vitamin B12 and Cyano Vitamin B12 in Indian adults (IMPROVIT – Part II)
3.	2016_AUG_S N_194	Dr Sadanand Naik	Pathology	Comparison of uptake of vitamin B12 supplied through cow/buffalo milk(IMPROVIT Part III)
4.	2017_JAN_A B_211	Dr. Ashish Babhulkar	Orthopedics	Effectiveness of Rotator Cuff recruitment on pain and functional activity in patients with Rotator Cuff pathologies
5.	IHR_2017_SE P_AO_240	Dr. Abhijeet Oka	IVF	A retrospective study to determine whether the type of gonadotropin used for controlled ovarian stimulation is associated with progesterone elevation in the late follicular phase.
6.	IHR_2016_D EC_GG_203	Dr. Girish Godbole	Ob-Gyn	A Study to Determine Prevalence of Group B Streptococci (GBS) Colonization in Pregnant Women In Indian population
7.	2017_July _SJ_228	Dr. Sameer Jog	ICU	A Prospective observational cohort study to evaluation economic burden and psychosocial impact of dengue infection on patients treated at tertiary care hospital in Pune
8.	2016_APR_S K_188	Dr. Shilpa Kalane	NICU	A double-blind randomized controlled study to compare effects of both early oral and tube minimal enteral nutrition (OMEN) and only early tube minimal enteral nutrition (TMEN) in terms of achieving feeding tolerance in preterm very low weight infants
9.	2015_Dec_G G_182	Dr. Girish Godbole	Ob-Gyn	Assessment of impact of capacity building of gynecologists in Pune city regarding knowledge, attitude and practice of Non Scalpel Vasectomy (NSV)
10.	2017_June _MP_225	Dr. Malathi Panchawagh	Anesthesia	End tidal Oxygraphy as a tool to detect end point of pre oxygenation in supine and 30 degree propped up positions –A randomized comparative study



IN-HOUSE RESEARCH AT DMHRC: CLOSED-OUT PROJECTS – [CONTD.; N =19]

S. No.	DMHRC Protocol Code	Project Investigator	Department (s)	Title
11.	IHR_2017_D EC_AR_242	Dr. Ashish Ranade	Orthopedics	An observational study to assess the Quality of information on YouTube regarding clubfoot and its treatment.
12.	IHR_2017_SE P_MK_235	Dr. Mahesh Kulkarni	Orthopedics	A prospective non randomized comparative study to determine the effect of Tourniquet on functional outcome of Total Knee Arthroplasty
13.	IHR_2017_SE P_MK_236	Dr. Mahesh Kulkarni	Orthopedics	A prospective comparative study to effect of adding methyl prednisolone in peri-articular infiltration during primary TKR on post-operative pain and rehabilitation.
14.	IHR_2017_SE P_MK_237	Dr. Mahesh Kulkarni	Orthopedics	A randomized prospective comparative study of adductor canal block vs periarticular infiltration on functional outcome after TKR
15.	2017_June _SG_224	Dr. Suneel Godbole	Pediatrics	Pilot study of effect of age appropriate toys in sensory integration in ASD children between 2-6 years of age
16.	2016_Jun_AK _190	Dr. Preana Mankad	Anesthesia	Correlation of observed in-hospital mortality with predicted in-hospital mortality by the POSPOM score.
17.	IHR_2018_M AY_RT_269	Dr. Rucha Thorat	NICU	Prospective Comparative interventional study to determine effect of parent centric multisensory intervention program on pre-term babies in NICU
18.	IHR_2017_D EC_AR_243	Dr. Ashish Ranade	Orthopedics	An observational study of Lower Limb alignment in children measured on radiographs using coronal plane parameters.
19.	IHR_2018_M AR_AP_259	Dr. Aratee Palsule	Ophthalmology	To determine findings of Spectral Domain Optical coherence tomography (SD OCT) and perimetry when used for screening for HCQS toxicity in patients on HCQC therapy: Retrospective Pilot Study.





CLINICAL TRIAL RESEARCH AT DMHRC – PROJECTS REVIEWED BY IEC AND THEIR STATUS

A] TOTAL NUMBER OF PROJECTS REVIEWED – [N =40] [CT_2018_APR_CD_548 to CT_2019_MAR_CD_587]

Project status	Number of projects [N =40]
Ongoing	21
Pending	17
Rejected/ Terminated	02

Pending status – The projects have not been given final approval in view of lack of either administrative and/or regulatory documents in the context of clinical trials. Some of the documents and items include – Final CTA, EC review fees, final ICFs, CTRI notification, DCGI submission/ approval notification.

B] STATUS OF CLINICAL TRIAL STUDIES – AND THEIR THERAPEUTIC AREAS – UPDATED AS OF MARCH 2019

Ongoing and inactive projects –

Total number of studies	N=	51
Studies having ongoing patient activities	N=	34
Inactive studies – formal close-out from sponsor awaited	N=	17





C] THERAPEUTIC AREAS OF ONGOING PROJECTS – [N= 34]

THERAPEUTIC AREA	NUMBER OF ONGOING TRIALS [N=34]
1] Oncology	16
2] Dermatology	01
3] Endocrinology	03
4] Ob-Gyn	01
5] Medicine	03
6] Neurology	01
7] Ophthalmology	01
8] Orthopedics	03
9] Pediatric Endo	01
10] Rheumatology	01
11] Surgery	02
12] Urology	01

D] CLOSED-OUT PROJECTS AND THEIR THERAPEUTIC AREAS [N=6]

Therapeutic areas of closed-out projects –

Cardiology – 2
Endocrinology –2
Ob-Gyn –1
Surgery –1



DNB RESEARCH PROGRAM AT DMHRC – ONGOING PROJECTS [N = 37]

Sr. No	Department	Name of the Guide	Title of Thesis Protocol
1.	Anesthesia	Dr. Jitendra Kshirsagar	Prospective Study of Comparison between Gum Elastic Bougie–Guided Insertion and Digital Insertion Technique of Proseal Laryngeal Mask Airway.
2.	Anesthesia	Dr. Manjiri Ranade	A prospective randomized controlled study to compare the efficacy of adductor canal block and femoral nerve block in patients undergoing unilateral anterior cruciate ligament reconstruction.
3.	Cardiology	Dr. Shireesh Sathe	Role of Pre discharge sST2 and NT-pro BNP levels to ascertain the risk of adverse outcomes during a follow-up period of 6 months in patients admitted to tertiary care centre with acute decompensated heart failure (ADHF) with Left ventricular dysfunction
4.	Cardiology	Dr. Satej Janorkar	To compare the role of Global Longitudinal Strain (GLS) and LVEF (Left Ventricular Ejection Fraction) in anthracycline based chemotherapeutic patients, for early detection of cardiotoxicity.
5.	E N T	Dr. Sachin Gandhi	An observational study to find the sensitivity of i-SCAN in early detection of glottic cancer and precancerous lesions
6.	Emergency Medicine	Dr. Bhagyashree Bhurke.	Comparison of electrolytes values obtained by using point of care blood gas analyzer and that by laboratory auto analyzer in patient presenting with shock at emergency department.
7.	Emergency Medicine	Dr. Prasad Rajhans	“Cross sectional study of Workplace violence against emergency room doctors and nursing staff in tertiary care”
8.	Gastroenterology	Dr. Harshal Gadhikar	Outcome of Extracorporeal Shock Wave Lithotripsy (ESWL) in Chronic Pancreatitis with Pancreatic Duct Calculi.
9.	General Medicine	Dr. Parag Vaste	To study the correlation between the trend of Immature Platelet Fraction and recovery of platelets in patients of dengue with thrombocytopenia.
10.	Nephrology	Dr. Atul Mulay	“Incidence and Risk Factors of Catheter Related Blood Stream Infections in Patients with Tunnelled Cuffed Catheters as Vascular Access for Hemodialysis.”
11.	Neurology	Dr. Rahul Kulkarni	“ A Prospective Study Of Pattern Of Immune-Mediated Demyelinating Central Nervous System Disorders In A Tertiary Care Setup In Western India ”
12.	Neurosurgery	Dr. Jayadev Panchawagh	“Retrospective analysis to determine efficacy of micro vascular decompression surgery for Trigeminal Neuralgia”.
13.	Ob-gyn	Dr. Pratibha Kulkarni	A retro-prospective study to evaluation of maternal and neonatal outcomes in vaginal births after previous cesarean section.
14.	Ob-gyn	Dr. Girish Godbole	A Prospective Study To Compare The Effect Of Zero Separation after Vaginal Birth And Early Skin to Skin Contact to Routine Neonatal Care on Immediate Neonatal And Maternal Outcomes In A Tertiary Care Centre
15.	Ophthalmology	Dr. Vidyadhar Patwardhan	To study effect of myopia on thickness of retinal nerve fiber layer measured by spectral domain ocular coherent tomography.
16.	Ophthalmology	Dr. Prasad Walimbe	To compare the prevalence of dry eye in patients with and without Rheumatoid Arthritis



D^{NB} RESEARCH PROGRAM AT DMHRC – ONGOING PROJECTS [CONTD.; N = 37]

Sr. No	Department	Name of the Guide	Title of Thesis Protocol
17.	Ophthalmology	Dr. Madhav Bhat	“Prospective observational study of Outcome of amblyopia treatment in 7 to 12 year age group”.
18.	Ophthalmology	Dr. Shrikant Joshi	Prospective Comparative Case Control Study of VEGF-A levels in aqueous humor of elderly without ARMD and patients with ARMD (Age-related macular degeneration) undergoing ophthalmic surgical interventions.
19.	Ophthalmology	Dr. Madhav Bhat	A cross-sectional observational study to compare macular vascular perfusion characteristics in patients suffering from diabetes mellitus with and without diabetic nephropathy and healthy adults
20.	Ophthalmology	Dr. Shrikant Joshi	A prospective observational study to analyze the types of ocular emergencies and their visual outcome in tertiary care hospital.
21.	Orthopaedics	Dr. Ashish Ranade	“Retrospective study to determine normal radiographic parameters in Pediatric pelvic radiographs in 0-8 year’s age group in Indian population.”
22.	Paediatrics	Dr. Sumit Pitkar	Study on the role of Immature Platelet Fraction in differentiating peripheral platelet destruction and marrow failure as a cause of thrombocytopenia in children
23.	Paediatrics	Dr. Arti Rajhans	Effect Of Kangaroo Father Care Versus No Kangaroo Father Care In Preterm Low Birth Weight Neonates On The Duration Of NICU Stay -A Comparative Study
24.	Paediatrics	Dr. Sumit Pitkar	Prediction of early tolerance of enteral feeding in preterm low birth weight infants by measurements of superior mesenteric artery resistive index- The prospective observational study
25.	Paediatrics	Dr. Rajan Joshi	Prospective observational study to analyze changes in breast milk composition of mothers with preterm infants.
26.	Paediatrics	Dr. Suneel Godbole	Assessment of burden among parents of children with Autistic Spectrum Disorder - A cross sectional study.
27.	Paediatrics	Dr. Arti Rajhans	Effectiveness of short bi-nasal prongs versus face mask for initiation of CPAP in delivery room on the need for mechanical ventilation in preterm neonates – A Prospective Comparative Study
28.	Paediatrics	Dr. Sumeet Pitkar	Role of the immature platelet fraction in predicting severity of thrombocytopenia and occurrence of bleeding manifestation in patient of dengue infection.
29.	Paediatrics	Dr. Arti Rajhans	“A Retrospective And Prospective Study Of Clinical Utility Of An Early Amplitude Integrated Electroencephalography And Conventional Electroencephalography In Neonates At Risk Of Neurological Injury.”
30.	Pathology	Dr. Mahesh Mandolkar	Androgen Receptor expression in Triple Negative Breast carcinoma – A prospective observational study
31.	Pathology	Dr. Mahesh Mandolkar	Prospective study to evaluate Microsatellite instability (MSI) in Specimens of Endometrial Carcinoma
32.	Radio Diagnosis	Dr. Ashwini Kulkarni	“A prospective study to assess role of RESOLVE DWI in diagnosing utero-cervical lesions with Histopathological Correlation”



D^{NB} RESEARCH PROGRAM AT DMHRC – ONGOING PROJECTS [CONTD.; N = 37]

Sr. No	Department	Name of the Guide	Title of Thesis Protocol
33.	Radio Diagnosis	Dr. Ashwini Kulkarni	“A Prospective Observational Study to Evaluate Role of 3T MRI in Evaluation of Chondromalacia of Knee Joint with Arthroscopic Co-Relation.”
34.	Surgical Oncology	Dr. Dhananjay Kelkar	“Retrospective observational study to analyze patterns of treatment failure in carcinoma of anterior two third of tongue”.
35.	Urology	Dr. Prakash Patwardhan	Prospective comparative study of Laser Lithotripsy and Pneumatic Lithotripsy in Miniperc for Renal Calculi
36.	Urology	Dr. Prakash Patwardhan	Comparative Observational Study between Antegrade Percutaneous Nephrolithotomy (PCNL) and Retrograde Rigid Ureteroscopic Lithotripsy (URSL) In Proximal Ureteric Calculi.
37.	Urology	Dr. Subodh Shivde	“Correlation Between Perioperative Urine and Stone Cultures and Their Association with Postoperative Infectious Complications - A Prospective Analysis.”



D_{NB} RESEARCH PROGRAM AT DMHRC – PROJECTS ACCEPTED BY NATIONAL BOARD OF EXAMINATIONS [N= 49]

Sr. No	Department	Name of the Guide	Title of Thesis Protocol
1.	Anesthesia	Dr. Naik Swapna	A comparative study to evaluate the duration of postoperative analgesia with low dose ropivacaine and high dose ropivacaine in ultrasound guided interscalene brachial plexus block for arthroscopic shoulder surgery.
2.	Anesthesia	Dr. Manjiri Ranade	A prospective randomised control study to compare the efficacy of adductor canal block and local infiltration analgesia in patients undergoing unilateral total knee replacement
3.	Anesthesia	Dr. Prasanna Khare	Assessment of Infant and Young Child Feeding Practices (IYCF) in 18-21 months old healthy children with respect to nutritional status.
4.	Anesthesia	Dr. Vinayak Desurkar	Comparison between ketamine and lignocaine for alleviation of propofol induced pain at injection site and their effect on hemodynamic changes
5.	Anesthesia	Dr. Rijuta Kashyapi	Comparison of intubating conditions at 60 seconds with Cisatracurium 4*ED95 dose and Cisatracurium 2*ED95 dose Plus priming dose and low dose Ketamine
6.	Anesthesia	Dr. Bhagyashree Shivde	“A Randomized study for comparison between Proseal LMA and I-gel in anaesthetized patients”
7.	Anesthesia	Dr. Malathi Panchwagh	“The effect of Nitrous oxide on the equilibration times of Isoflurane, Sevoflurane and Desflurane – A randomised, controlled, comparative study
8.	Anesthesia	Dr. Swapna Naik	A comparative study to evaluate the duration of postoperative analgesia with Dexamethasone(8mg) and Dexmedetomidine(50mcg); when used as an adjuvant; to 30ml 0.5% Ropivacaine in Interscalene brachial plexus block for arthroscopic shoulder surgeries.
9.	Cardiology	Dr. Satej Janorkar	To Study Prevalence of Iron Deficiency in Heart Failure Patients with or without Anemia.
10.	Emergency Medicine	Dr. Prasad Rajhans	A Prospective Observational study on comparison of the Glasgow Coma Scale score & Full Outline of UnResponsiveness score in patients with Traumatic Brain Injury outcomes
11.	Emergency Medicine	Dr. Sonal Utpat	Assessment of qSOFA score as a tool to identify sepsis in patients presenting to the Emergency Department with suspected infection.
12.	Emergency Medicine	Dr. Prasad Rajhans	“A Prospective observational study of Outcome of Out of hospital cardiac arrest (OHCA) in the patients presenting to the Emergency department.”
13.	Emergency Medicine	Dr. Bhagyashri Bhurke	A study of 6 weeks outcome of patients presenting to the Emergency Department with chest pain using HEART score.
14.	Emergency Medicine	Dr. Prasad Rajhans	prospective evaluation of diagnosis of patients presenting with syncope to the emergency department
15.	Emergency Medicine	Dr. Bhagyashree Bhurke.	A prospective study comparing CURB-65 and LAC-CURB-65 scores in predicting outcome in community acquired pneumonia patients



16.	Gastroenterology	Dr. Harshal Gadhikar	Clinical Profile of Bacterial Infections in Cirrhosis Patients
17.	General Medicine	Dr. Sanjeev Mangrulkar	A retrospective observational study to assess the association between duration of use of vasopressor and clinical outcome
18.	General Medicine	Dr. V. E. Amritkar	Risk Factor Profiling of Acute Coronary Syndrome (ACS) in Premenopausal women presenting at a Tertiary Hospital in Indian Urban Setting.
19.	General Medicine	Dr. Pratibha Phadke	A Retrospective study of prognostic factors of Patients With Hemophagocytic Lymphohistiocytosis Syndrome
20.	General Medicine	Dr. S. V Mangrulkar	A study to evaluate the clinical efficacy of EPO (erythropoietin) or its analogue to maintain the target haemoglobin (Hb) level in patient population with CKD (Chronic kidney disease) on regular maintenance haemodialysis.
21.	General Medicine	Dr. R. B Kulkarni	“A Prospective Study on relationship between positive fluid balance on day 3 & day 7 and its outcome in patients of septic shock”
22.	General Medicine	Dr. R. B Kulkarni	“To study the correlation of D-Dimer and Computed Tomography Pulmonary Angiography in diagnosis of Pulmonary Embolism”
23.	General Surgery	Dr. Jitendra Deuskar	“A retrospective observational study to compare surgical outcome following hand-sewn anastomosis against stapled intestinal anastomosis”.
24.	General Surgery	Dr. Utkrant Kurlekar	A retrospective observational study to compare incidence of post operative complications with the type of thyroid surgery.
25.	General Surgery	Dr. Shridhar Kanitkar	A retro-prospective comparative outcome analysis between primary closure methods including flaps with healing by secondary intention in pilonidal sinus surgery.
26.	General Surgery	Dr. Utkrant Kurlekar	A retrospective study of types of axillary lymph node dissection for operable breast cancer and its correlation with morbidity and oncological safety in clinically lymph node negative axilla
27.	Medical Oncology	Dr. Padmaj Kulkarni	“To study the incidence of cardiotoxicity induced by cardiotoxic anticancer drugs as measured by Global longitudinal strain”
28.	Neurology	Dr. Rahul Kulkarni	To study the prevalence of Non Motor Symptoms in Parkinson’s disease in an Indian Population
29.	Ob-gyn	Dr. Asha Gokhale	A prospective observational study of the factors associated with failed and successful medical method of MTP (Medical Termination of Pregnancy) in first trimester.
30.	Ob-gyn	Dr. Girish Godbole	A cross-sectional study to determine association between age, BMI, lifestyle & semen characteristics of male partners of infertile couples.
31.	Ob-gyn	Dr. Anuradha Wakankar	Cross-sectional observational study to assess the incidence of endometriosis diagnosed during laparoscopy and association with clinical characteristics.
32.	Ob-gyn	Dr. Asha Gokhale	A retrospective study to analyse pregnancy outcome wherein fetuses are diagnosed with absent/unossified or hypoplastic nasal bone on ultrasound and its association with aneuploidies.
33.	Ophthalmology	Dr. Roopali Nerlikar	“Observational cross sectional study of association between systemic risk factors and severity of diabetic retinopathy”



34.	Ophthalmology	Dr Shrikant Joshi	“To evaluate visual outcome and residual refractive astigmatism following implantation of Toric Iols in immature senile cataract patient with low, mid and high astigmatism”
35.	Ophthalmology	Dr. Roopali .r. nerlikar.	“A prospective study of changes in parameters of ocular surface homogeneity following cataract surgery.”
36.	Ophthalmology	Dr. Roopali .r. nerlikar.	“A prospective study of changes in parameters of ocular surface homogeneity following cataract surgery.”
37.	Ophthalmology	Dr. Roopali Nerlikar	Prospective observational study of factors affecting visual prognosis in cases of penetrating ocular trauma
38.	Ophthalmology	Dr. Ramesh Murthy	A Prospective randomised Case control Trial of Atropine 0.01% eye drops in Control of Myopia in a Tertiary care centre in India
39.	Orthopedics	Dr. Mahesh Mone	Correlation of restoration of talocrural angle with stable reduction of malleolar fractures in adults : A prospective observational study
40.	Orthopedics	Dr. Ranjeet Deshmukh	A retro-prospective study comparing in-hospital morbidity and mortality in post traumatic proximal femoral fractures operated within and after 48hrs
41.	Paediatrics	Dr. Rajan Joshi	Heparin for prolonging peripheral intravenous catheter use in preterm low birth weight neonates- A Prospective comparative study.
42.	Paediatrics	Dr. Arti Rajhans	Validation of Lactate clearance as a tool for Prediction of Mortality in Critically Ill Children.
43.	Paediatrics	Dr. Rajan Joshi	To compare Less invasive surfactant administration (LISA) versus Intubate- surfactant-extubate (InSurE) in preterm neonates with respiratory distress syndrome
44.	Paediatrics	Dr. Suneel Godbole	To study the association between neonatal stress and developmental supportive care in NICU babies
45.	Pathology	Dr. Sujit Joshi	To study diagnostic utility of Endobronchial ultrasound (EBUS) guided Transbronchial Needle Aspiration (TBNA) in evaluation of mediastinal lesions
46.	Pathology	Dr. Sujit Joshi	“A Comparative study between Fine Needle Aspiration Cytology (FNAC) and Histopathological Examination (HPE) in Thyroid Lesions: A Retrospective Observational study”
47.	Pathology	Dr. Sujit Joshi	Prognostic Significance Of Tumor Budding In Stage-I & II Colorectal Carcinoma - A Retrospective Observational Study in Tertiary Care Hospital.
48.	Plastic Surgery	Dr. Parimal Kulkarni	“A prospective observational study to assess the correlation between mode of injury and type of fractures sustained in maxillofacial trauma.”
49.	Urology	Dr. Subodh Shivde	Prospective comparative observational study of two miniaturized percutaneous nephrolithotomy techniques viz.miniperc vs ultraminiperc in patients with renal stone upto 2 cm.





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