**Improving Quality of Care: Developing a Multidisciplinary Model Supported by Pharmacy Students**

**Marcelle Appay1,2**, Justine Lai3, Justine Hay4, Connie Calvisi5, Geoffrey Wills5, Shreyas Kharadi1, Sajani Nanayakkara1, Ji Sang Ryu1,Rozanna Alameddine3, Sarah Jupp3, Margaretta Lin3, Jessica Nguyen3, Tammy Nguyen3, Nicholas Harrison6, Fady Gad7, Sakura Kagaya7, Liam Nguyen8, Sharma Piyush8, Vicky Shion8, Dr Advait Pandya9, Dr Mustafa Emin9, Dr Ewe Shen Lim9, Dr Urna Rahman9, Dr Farhad Hayat9, Dr Chamali Gajaweera9, Dr Nashwa Sheriff9, Asad E. Patanwala1, 7, Dr Leonardo Pasalic10, 11, 12, Prof. Jan-Willem Alffenaar1, 3.

1 School of Pharmacy, Faculty of Medicine and Health University of Sydney, Camperdown, NSW, Australia

2 Department of Pharmacy, John Hunter Hospital, Newcastle, NSW, Australia

3 Department of Pharmacy, Westmead Hospital, Westmead, NSW, Australia

4 Department of Pharmacy Nepean Hospital, Kingswood, NSW, Australia

5 Department of Pharmacy Bankstown-Lidcombe Hospital, Bankstown, NSW, Australia

6 Department of Pharmacy Blacktown-Mount Druitt Hospital, Blacktown, NSW, Australia

7 Department of Pharmacy Royal Prince Alfred Hospital, Camperdown, NSW, Australia

8 Department of Pharmacy Auburn Hospital, Auburn, NSW, Australia

9 Medical Service Blacktown-Mount Druitt Hospital, Blacktown, NSW, Australia

10 School of Medicine Faculty of Medicine and Health University of Sydney, Camperdown, NSW, Australia

11 Institute of Clinical Pathology and Research (ICPMR), NSW Health Pathology, Westmead, NSW, Australia

12 Department of Haematology Westmead Hospital, Westmead, NSW, Australia

**Background and aims.** Improving the quality of care is a core responsibility in healthcare but time constraints in understaffed healthcare facilities pose challenges. Students enrolled in health degrees can help address this by contributing to quality improvement during clinical placements. This project aimed to explore the feasibility of involving students, to establish and successfully complete a multicentre collaborative quality improvement project on dosing of enoxaparin in obese patients.

**Methods.** A project proposal was developed by a core team of pharmacists and physicians. The proposal included a literature review component, and a retrospective cohort study conducted across New South Wales (NSW) public hospitals in Australia. The proposal was advertised through the Sydney Pharmacy School and recruited students received topic-specific induction from a specialised pharmacist. Weekly project meetings supported students in conducting the literature review search, preparing the low or negligible risk ethics application and developing data collection tools in REDCAP. Following appropriate ethics and governance approval, data collection at the participating hospitals was completed by healthcare professionals.

**Results.** A systematic literature review following the PRISMA guidelines was completed. The retrospective study was conducted across seven public hospitals in NSW, analysing data from all eligible obese patients prescribed therapeutic enoxaparin. Findings from both the literature review and retrospective multicenter study were published in international peer-reviewed journals.

**Conclusion/Discussion.** The success of this project demonstrates the effectiveness of a collaborative, multi-hospital research model in investigating complex clinical questions and in generating evidence to inform safe and effective clinical practice. Involvement of pharmacy students demonstrated how student-supported models enhance research capacity as well as foster future-ready clinical researchers. In a future project we will provide students with appropriate training to enable data collection from the medical record in a reproducible and accurate manner to further relieve staff in doing quality improvement projects.