**RESEARCH PROPOSAL SUBMISSION FORM**

 **STUDY SYNOPSIS (Maximum 1500 words)**

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| **TITLE** | **Evaluation of General Medicine Perioperative Services in Victoria** |
| **PRINCIPAL INVESTIGATOR, AFFILIATIONS AND CONTACT DETAILS** | A/Prof Ar Kar AungDepartment of General MedicineAlfred Hospital, Melbourne, VIC 30040417 228 088A.Aung@alfred.org.au |
| **ASSOCIATE INVESTIGATORS AND AFFILIATIONS** | Dr David Buxton, Alfred HealthDr Richard Coates, Alfred HealthAssociate Professor Harry Gibbs, Alfred HealthAssociate Professor Ingrid Hopper, Alfred HealthDr Amy Osborne (Site Principal Investigator), St Vincent’s HospitalAssociate Professor Douglas Johnson (Site Principal Investigator), Royal Melbourne HospitalDr Ned Douglas, Royal Melbourne HospitalDr David Lau (Site Principal Investigator), Eastern HealthDr May Lea Ong (Site Principal Investigator), Western HealthDr Chris Lemoh, Western HealthDr Rona Zhao (Site Principal Investigator), Monash HealthDr Elizabeth Potter, Monash HealthDr Ronan O’Donnabhain (Site Principal Investigator), Austin HealthDr Edward Ritchie (Site Principal Investigator), Grampians Health Ballarat Dr Vinita Rane (Site Principal Investigator), Northern Health |
| **I AM SEEKING FOR MY STUDY TO BE CONSIDERED AS A (PLEASE CHOOSE ONE):** | **IMSANZ-RN ENDORSED STUDY X****IMSANZ-RN SUPPORTED STUDY****IMSANZ-RN PARTNERED STUDY** |
| **IS THIS STUDY CURRENTLY A MULTICENTRE STUDY? (I.E. INVOLVEMENT OF MORE THAN ONE HEALTH SERVICES OR JURISDICTION)** | **YES** |
| **ARE YOU LOOKING FOR OPPORTUNITIES FOR MULTICENTRE COLLABORATION?** | **NO –** have already approached most centres around Victoria |
| **IF ‘YES’ TO QUESTION ABOVE, CAN INTERESTED COLLABORATORS CONTACT YOU DIRECTLY?** | **N/A** |
| **BACKGROUND** | Increasing numbers of elderly co-morbid patients undergoing complex surgical procedures means a multidisciplinary collaborative approach to perioperative patient care has become a necessity, with general physicians playing an integral role in this process (1-3). The Australia and New Zealand College of Anaesthetists (ANZCA), in partnership with other specialist colleges and societies, has developed a perioperative care framework, which calls for a multidisciplinary, multispecialty team approach to provide comprehensive care of a perioperative patient (1). Within shared-care or integrated models of perioperative consultation, several studies have highlighted the value of general physicians as a specialist group in lowering the risk of post-operative complications and adverse outcomes and reducing length of acute stay which led to greater patient satisfaction and reduced healthcare costs (2-5).Despite the calls for greater collaboration in perioperative care, anecdotally, majority of general medicine perioperative services across Australia operate in ‘traditional’ models, whereby referrals from surgical units are received on an ad hoc basis, often to ‘optimise’ medical co-morbidities before emergency procedures, to mitigate post-operative complications, or address other emerging medical issues. Additionally, consultation requests may be made for non-operative patients admitted under surgical units. These models offer limited opportunities to proactively identify patients who are at high-risk for perioperative complications and institute appropriate management strategies in a timely manner. Additionally, the silo-ed approach also means there are limited opportunities for close collaboration with other disciplines. In Victoria, attempts have been made to estimate the contribution of general medicine to various aspects of public hospital care (6). Despite the local and international studies highlighting the important role of general medicine in multiple facets of patient care within health services, limited number of Australian studies have specifically evaluated the involvement of general medicine in perioperative care (7). To achieve a more collaborative ‘proactive’ approach as outlined by the ANZCA perioperative care framework, it is important to better understand the current state of perioperative work undertaken by the general physicians in acute hospital settings. Such data will not only help understand the patterns, characteristics and outcomes of referrals but also understand the critical services gaps and opportunities for improvement. References:1. Fernando J, Burstow M, Gray H, Thorne K, Cox M, MacDonald K, et al. The Perioperative Care Framework [Internet]. Our Perioperative Care Framework. ANZCA; 2021 [cited 2023Mar9]. Available from: https://www.anzca.edu.au/safety-advocacy/standards-of-practice/the-perioperative-care-framework
2. Hammersley M, Jones H, Singh S, Stratton I, Silva M. Can a perioperative physician improve care and reduce length of stay in a surgical emergency admission unit? Clin Med. 2015 Jun 1;15(Suppl 3):s22–s22.
3. Centre for Perioperative Care. Impact of perioperative care on healthcare resource use. CPOC; 2020.
4. McEvoy MD, Wanderer JP, King AB, Geiger TM, Tiwari V, Terekhov M, et al. A perioperative consult service results in reduction in cost and length of stay for colorectal surgical patients: evidence from a healthcare redesign project. Perioper Med. 2016 Dec;5(1):3.
5. Gordon AL, Evans BJ, Dhesi J. The physician’s role in perioperative management of older patients undergoing surgery. Clin Med. 2017 Aug;17(4):357–9.
6. Gorman AC, Newnham HH, Potter EL, Busija L, Aung AK. Understanding the contribution of general medical services to acute inpatient care in Victorian public hospitals. Intern Med J. 2022 Dec;doi:10.1111/imj.15994.
7. Tam A, Leung A, O’Callaghan C, Fagermo N. Role of telehealth in perioperative medicine for regional and rural patients in Queensland: Telehealth in perioperative medicine. Intern Med J. 2017 Aug;47(8):933.
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| **RESEARCH QUESTION/HYPOTHESIS** | The main objectives of this multicentre observational study are to: (1) describe the models of perioperative care utilised by various health services in the state of Victoria,(2) estimate the frequency of perioperative referrals made to general medical services over time, (3) evaluate the sources of perioperative referrals, (4) evaluate the characteristics of perioperative referrals and, (5) evaluate management outcomes |
| **PRIMARY OUTCOME/PROCESS MEASURE** |  Models of care* Description of perioperative model of care utilised by the general medical services

Frequency of perioperative referrals* Total number of referrals over 6 consecutive weeks

Sources of perioperative referrals* Referring surgical units

Characteristics of perioperative referrals* Primary reasons for referrals (e.g. pre-op optimisation, post-op management, post METcall)
* Primary areas of medical input (e.g. electrolyte management, cardiac dysfunction)
* Operative state at the time of referral (pre-op, post-op, no-op, inbetween scheduled ops)
* Planned primary surgical procedure
* MET call within prior 24 hours
* Goals of care status documentation
* Other specialty involvement in consultation
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| **SECONDARY OUTCOME/PROCESS MEASURES** | Outcomes* Total consultation time by general medical service (at index referral)
* Number of MET calls in 48 hours following consultation
* Number of ICU admission 48 hours following consultation
* Death
* Number of day of surgery cancellation
* Number of take-over of care eventuated under general medicine
* Length of stay at acute hospital

Discharge destination (home vs. rehab vs. long term residential care facility) |
| **STUDY DESIGN****(IF THE STUDY IS A CLINICAL TRIAL, PLEASE INCLUDE INFORMATION ON SAMPLE SIZE CALCULATION, RANDOMISATION, AND BLINDING)**  | Prospective observational cohort study |
| **INCLUSION CRITERIA** | * Metropolitan and/or regional public hospitals with perioperative services embedded within the department of general medicine in the state of Victoria
* All adult patients ≥18 years of age referred to general medical perioperative services over a 6-week period
* Both inpatient and outpatient referrals
* Concerning any operative or non-operative surgical patients
* Both emergency and elective surgery referrals
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| **EXCLUSION CRITERIA** | * Patients referred from non-surgical units for general medical evaluation
* Patients exclusively managed by another specialty’s perioperative service (e.g. orthogeris)
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| **EXPECTED NUMBER OF PARTICIPANTS** | 1000 - 1500 |
| **STUDY DURATION** | 6 months from 1st July 2023 to 31st December 2023  |
| **ANALYSIS** | Categorical data will be presented in counts and proportions and continuous data will be analysed for normality of distribution and presented in mean +/- standard deviations or median with interquartile ranges. Where applicable, comparisons will be made using parametric or non-parametric tests of significance as appropriate. Stratified analyses, based on models of care, will be undertaken where appropriate.  |
| **IMPORTANCE TO GENERAL MEDICINE**  | This study will highlight the importance of general medicine perioperative services in Australia and the data will likely influence the development of quality improvement initiatives and service structure changes to provide better quality of care to the patients. |
| **FUNDING** | None |
| **CURRENT PROGRESS** | Design and protocol development XEthics application XStudy in progress []Manuscript write-up in progress or under review []Accepted or published []Aborted |
| **IMSANZ-RN OFFICE USE ONLY** | **APPROVED****APPROVAL CATEGORY: ENDORSED STUDY** |