ANNUAL DIVISION QUALITY COMMITTEE REPORT

DIVISION: Orthopaedic Surgery **DIVISION HEAD:** Dr. Paul E. Beaulé, MD, FRCSC

Please describe your divisional performance over the last 12 months as it contributed to support the hospital in achieving its strategy. Where possible incorporate objective corporate performance measures to justify your answer (500 words)

The stratgeic plan for the Division of Orthopaedic Surgery is still in place, and is being followed step-by-step. Further to that, a specific Division Wide Research Strategic Plan has been put together with the engagement of all clinical practice unit leads and key collaborators to better focus our research and continuous quality improvement output. The Division continues to push forward projects in line with the hospital's five strategic directions. We will engage with key Stakeholders to revised our strategic plan for the next five years in the new year.

1. Quality

1a. Surgeon empathy was measured via the Consultation and Relational Empathy (CARE) measure in the Orthopaedic Clinics (Civic and General) and associations with the Canadian Patient Experience Survey – Inpatient Care (CPES-IC) were studied

- We have previously validated the CARE measure in the orthopaedic setting, as indicated by a normal distribution of surgeons' scores and aTOHAMO Quality and Patient Safety grant was secured in 2017
- We are in the process of finalizing the manuscript. We demonstrated a moderate and significant correlation between surgeon empathy and a specific question on the CPES-IC survey: "during this hospital stay, how often did doctors treat you with courtesy and respect?" (correlation coefficient of 0.52, p= 0.039). This demonstrates that the surgeons were coherent in empathy behaviors both during the clinic visit and hospitalization.
- A manuscript will be submitted for publication in a quality improvement journal before the end of 2019

1b. We continue to prospectively monitor adverse events (AEs), with a directive to physicians that compliance in reporting of less than 80% will affect AFP fund distribution:

- The AE reporting tool (http://bit.ly/2iV1wDu) continues to faciliate an uptick in the recording of AEs (in particular Grade 1 + Grade 2 AEs) by residents and surgeons.
- This AE tool has also been integrated into our new orthopaedic platform, ConEHR, to enable us to track prgress over time
- The Physician Assistants provide the CQI lead with on-ward reports on a regular basis. The CQI lead then integrates this information into semi-annual metrics, which are fed to the surgeons within the division

1c. Antibiotic Stewardship: An Infectious Disease (ID) specialist and a pharamacologist continue to attend rounds weekly with the comprehensive orthopaedic service (COS) at the General Campus to review antibiotic use (i.e. indication, choice of antibiotic, length of course, etc).

- Streamlined weekly rounds provide for efficient use of time and ensure maximum face to face communication between orthopaedic surgeons and ID specialist
- This initiative has improved both resident and surgeon education with regards to antibiotics and has improved overall patient care

2. People

2a. The role of physician assistants (PAs) at the Civic and General continues to be refined clinically, and in-sync with quality improvement iniatitives. Some roles and responsibilities include:

- On-call coverage during resident education activities
- Assisting in the completion and reporting of AEs
- Improved efficiencies on the ward, in the clinic and in the operating room in order to help to spread the residents' clinical workload

2b. The Comprehensive Orthopaedic Service (COS) has been in place at the Civic Campus since July 2016 and the General campus since September 2017

- All urgent patients are admitted under one Most Responsible Physician (MRP) for the week, during which time the designated MRP has minimal elective activity to enable improved inpatient care in a reduced stress environment
- We are currently identifying inconsistencies between MRPs and communicating these inconsistentices to all COS staff, in aim to improve the performance of each MRP
- Furthermore, we are tracking attendance and reviewing feedback from clinical managers to surgeons at both Campuses during our monthly PS/CQI meetings

3. Academics

3a. For FY2019, a total of $1,101,446.00 was awarded to our clinician scientists in the form of internal and external research grants.

3b. The Division's Peer-to-Peer continuing professional development (CPD) – wherein surgeons will be paired together to observe one another, discuss/critique procedures and strive for continuous improvement – continues to be in the development stages. Increased participation for 2019 is being strongly encouraged.

4. Community

4a. The Rattle Me Bones fun-run for bone cancer research and malignancies that affect mobility raised a total of $6,900 in 2019 with 400 registered runners (http://rattlemebones.ca/). The organizers moved the event to a new venue in 2017, which proved to be very successful event and will continue to host the fun run in future years.

5. Finance

5a. The Division's Research Chair in Regenerative Orthopaedic Surgery was established with a commitment of $1 million from Division members. Our Chair, Dr. Daniel Coutu was hired and has been welcomed to our Team. We look forward to working with Dr. Coutu to enhance the care of patients with acute and chronic muskuloskeletal conditions.

In terms of corporate performance measures that align with the hospital's 'Triple Aims' of "Better patient experience, better quality at less cost, healthier populations", we performed the following:

Patient Experience

Partners Meetings (leadership)

- Regular meetings with the Emergency Department (ED) have led to a better understanding of wait time targets, which has enabled the Division to reduce time to consult as well as time to disposition. This closed the loop of communication on patient care, and sped up admission for fractured hips.
- Regular meetings with the Department of Anaesthesiology led to a better understanding of operating room protocols along with shared concerns.
- Regular meetings with radiologists have been established to improve overlapping aspects with orthopaedic surgery and to decrease inefficiencies and waste. The focus of these meetings is mostly focused on outpatient clincis, including:
    - Standardization of x-ray protocols based on diagnosis for outpatient x-ray clinics
    - Decreasing the time patient has to wait for an x-ray
- Review of difficult cases continues to facilitate the discusssion of contentious issues

Patient Recovery

- With our new CQI software (ConEHR), we are better able to track patient-reported outcome measures (PROMs) from all patients prospectively
- We established a volunteer program, which now has 32 volunteers to help collect condition specific and quality of life PROMs on all initial consultation and follow-ups for each CPU in the orthopaedic and plaster room clinics
- ConEHR has helped us not only keep firm track of objective outcome measures, but also subjective outcome measures

OBIEE Dashboard

- Division members' use of the OBIEE dashboards continues, facilitating awareness of their individual performance metrics and thereby allowing for individual goals to be developed to improve the overall experience. This particular initiative has been enacted hospital-wide, and has beem made part of the re-credentialing process.
- Members of the Division of Orthopaedic Surgery access their OBIEE dashboards more than any other physician group at TOH.
- Feedback is provided regularly to the quality improvement team and individual surgeons by the CQI lead
- CQI and trauma round are held 4 times a year .

Reduced Costs

- We continue to refine performance metrics to ensure operating room efficiency for performing four joints in a day at the Civic and General campuses.
- We are also standardizing our equipment as welll as for additional devices
    - The Division Head must approve all orders
    - Special order requests are being tightly monitored
- Furthermore, we are undergoing frequent evaluation of our vendor contracts

Patient health

- AE recording by independent medical reviewers via the OrthoSAVES tool in comparison to institutional discharge abstract coders highlighted significant discrepances. These findings were presented at the 2018 AAOS meeting and provided impetus to further use the AE tool.
- Participating in the antibiotic stewardship program has aimed to reduce the risk of development of MRSA and antibiotic resistance in the long term.

Please identify the major threats to patient safety for the patients you treat based on your interpretation of information arising from routinely collected performance data and incidents reported within the Patient Safety Learning System, Serious Incident Reviews, and Morbidity and Mortality rounds, where available (500 words)

Adverse Events

Since January 2019, we reported 314 adverse events. The most common adverse events were:

- Infection (n= 50)
- Delirium (n= 25)
- Implant/Instrument related (n= 17)

Handover Email Template

Daily handover emails are expected at the start and end of each day and pertinent updates are sent throughout the day to all residents, PAs, and staff.

Morbidity and Mortality Rounds

The Process of recording and circulating M&M rounds continues as it did in 2017

- Semi-annual summary reports are circulated to the entire division
- Please see description of all M&Ms that were uploaded to the SharePoint site

Please describe the extent to which your clinical services are meeting the expectations of your patients based on: (1) your interpretation of information arising from patient feedback (example patient concerns, Post Visit phone calls, surveys, focus groups), and (2) the requirements of the Elizabeth and Matthew Policy. (500 words)

Patient Feedback

1a. Patient Letters

- All patient letters/complaints through patient advocacy are reviewed by the Division Head and the clinical lead of the Patient Safety and Continuous Quality Improvement (PS+CQI) Committee, providing input/feedback for both the clinician involved as well as the patient and allied health professionals. Where appropriate, Just Culture principles are applied.
- In 2019, the Division of Orthopaedic Surgery saw a much lower volume of patient letters than in 2018
- Correspondence with the ED to streamline the orthopaedic admission process especially with regards to fractured hips is still ongoing

1b. Patient Experience scores and Readiness for Discharge

- Findings from the Surgical Patient Notepad quality improvement initiative led to surgeons more actively engage with patients and answering queries to improve overall inpatient experience, which is being tracked using the CPES-IC on 100% of patient moving forward with ConEHR.
- A Readiness for Discharge survey is given to each patient prior to discharge to understand the reservations patients might have. Given the Epic slowdown in the summer time, we put the collection on hold and resumed in November

- We are now actively collecting data and hope to analyze the data in in the upcoming months

2. Elizabeth and Matthew (E&M) Policy
2a. The E&M policy continues to be used by surgeons from across sites with regular and consistent documentation in the patient's chart and with the appropriate arrangements (voice mail, notification system) should surgeon require coverage of his or her patients during this time.

Describe and justify Divisional priorities for quality in the next 12 months based on your answer above. Please identify three priorities in descending order. (500 words)

All CQI activities are overseen by a multi-disciplinary Patient Safety and Continuous Quality Improvement (PS & CQI) committee, which meets on a monthly basis. This includes discussion of any serious incidents along with patient experience and concerns.

1. Operationalize CQI Program for All CPUs
Continuous quality improvement (CQI) is a systematic approach to making changes that lead to better patient outcomes and stronger health system performance. The Triple Aims of our CQI program are to improve overall health, improve the patient experience, and reduce per capita costs. By doing so, we will continually gather data that will be analyzed and adapted to provide healthcare that is effective, efficient, safe, timely, equitable, and most importantly, patient-centered. CQI is condition-specific, begins with the most prevalent condition within each CPU, and in the end is accomplished for every musculoskeletal condition in the Division. In the past year, we have made tremendous progress in operationalizing most of our CPUs. We are now tracking all patient reported outcome measures (PROMs) and quality of care delivery along the clinical care pathway per patient, per condition, per CPU. The aim of this is to ultimately improve patient outcomes and the overall healthcare experience. All our CPUs are now live, with the exception of Trauma and Hand & Wrist.

With the implementatin of our volunteer program, we now have the resources to ensure all patients complete their PROMs at consultation and follow-up visits in the clinics via iPad. The electronic based platform allows for efficient capture of data and query features to track regular progress of patient performance and surgeon performance. Furthemore, one of our Clinical Research Assistants is running audits on a monthly basis to track progress. If compliance is lower than our targets, she meets individually with the surgeon to identify barriers and provides proactive solutions.

2. Initiative to Reduce Early Post-Operative Visits to ED
In order to reduce ED visits, the Arthroplasty group in the Division is continuing an initiative to divert qualifying patients to the Plaster Room (Module P) at the General for immediate assessment by an Arthroplasty surgeon. If patients present to the ER within 14 days of their hip or knee replacement at TOH, are not in distress, have normal vital signs, and can walk, they are to go to the Plaster Room the same day or the following day (depending on time of presentation to the ER). If patients call the administrative assistants with concerns regarding pain, fever, or their surgical wound, and do not wish to wait for an office call back, the administrative assistant is to notify them that they may present to the Plaster Room that day or the next day. In order to improve knowledge translation and program awareness, efforts to improve communication of this model to staff, residents, and administrative assistants have been achieved.

Furthemore, patients receive an information sheet outlining this pathway prior to discharge from the hospital.

3. Improved communication with patients
The Division continues to work with TOH communication specialist Kathryn Young to revise orthopaedic patient booklets, to provide more appropriate resources to patients.