Quality Improvement Implementation, Option A: Hysterectomy Care Pathway

Project Time Period: 1/1/2022-12/31/2022

Summary: The focus of this project will continue to build upon the gains achieved with implementation of the MSQC Hysterectomy Care Pathway in the 2021 project year. This work will continue to improve care of patients undergoing elective hysterectomy surgery. Based on widely accepted clinical practice guidelines as a starting point, hospitals will implement the Hysterectomy Care Pathway and adjust to meet the practice needs at their hospital. We hope that this project will inspire multidisciplinary discussions to standardize, document and drive implementation of best practices at each hospital, ultimately improving Hysterectomy patient care.

QI Implementation Requirements: For elective hysterectomy patients, in addition to MSQC core data collection, participating hospitals will collect the variables outlined in this project. Hospitals will continue the use of the standard documentation template for surgeon documentation/charting, implemented during the 2021 project year.

> *Sites new to the project in 2022 will be required to implement a documentation template at their facility that includes specific documentation elements no later than June 30, 2022. Your facility will need to adopt a template format that works for your surgeons and with your EMR.*

Identifying an OB/GYN surgeon champion for this QI project will also be required. In addition, hospitals will implement a benign surgical specimen monitoring process, adopt use of the hysterectomy surgical approach algorithm, and perform a separate review of hysterectomy cases with SSI or unplanned return to ED related to surgery.

QI Implementation Goals: Implement all of the following steps to improve upon and monitor the process measures for elective hysterectomy patients as specified below. Measurement period will include the entire calendar year (1/1/2022 – 12/31/2022).

Preoperative	Intraoperative	Postoperative
Preadmission teaching includes multimodal pain management When applicable, documented patient education provided on: ● Smoking cessation ● Weight/obesity	Implement/maintain/update a comprehensive template for standardized charting (see Goal #4 below)	Multimodal pain management ● Postoperative order for multimodal pain management (2 or more non-opioid medications) if d/c on POD 0 ● Postoperative use of multimodal pain management (2 or more non-opioid medications) if d/c ≥ POD 1
Alternative treatments offered/ tried/ declined, or contraindications documented (if applicable)	Implement/maintain a benign uterine surgical specimen monitoring process (see Goal #5 below)	Discharge education includes pain management teaching
Glycemic control: ● HbA1c if diabetic ● random blood sugar (if not diabetic)	Adopt use of the hysterectomy surgical approach algorithm (see Goal #6 below)	
Appropriate antibiotics (see Table A)		

- **Goal #1: Preoperative Goals (30 points total)**
- **Goal 1a:** Preadmission teaching that discusses expectations after surgery including multimodal pain management ≥ 90% **(5 points)**
- **Goal 1b:** Patient optimization discussion related to smoking cessation (if applicable) ≥ 80% **(5 points)**
- **Goal 1c:** Patient optimization discussion related to weight/obesity (if applicable) ≥ 80% **(5 points)**
- **Goal 1d:** Alternative treatments offered /tried / declined, or contraindications documented, before undergoing a hysterectomy (if applicable) ≥ 90% **(5 points)**
- **Goal 1e:** HbA1c obtained for diabetics or random blood sugar obtained for non-diabetic patients ≥ 80% **(5 points)**
- **Goal 1f:** Use of appropriate antibiotics (see Table A) ≥ 90% **(5 points)**

Goal #2: Postoperative Goals (15 points total)

- **Goal 2a:** Postoperative order for multimodal pain management (2 or more non-opioid medications) if discharged on POD zero ≥ 90% **(5 points)**
- **Goal 2b:** Postoperative use of multimodal pain management (2 or more non-opioid medications) if discharged on or after POD one ≥ 90% **(5 points)**
- **Goal 2c:** Discharge education includes multimodal pain management teaching ≥ 90% **(5 points)**

Other Project Goals

- **Goal #3**: Your site will perform an internal quality review of each elective hysterectomy case that has a postoperative SSI or a return to the ED related to the surgery, identifying any underlying trends and applying that knowledge toward process improvement efforts. An overall findings summary (trends identified, action plans implemented) should be submitted with your 2022 QII Project Summary Report. **(5 points)**

- **Goal #4:** Implement/maintain/update a comprehensive template for standardized charting at your hospital, adjusting your implementation approach to achieve widespread adoption of the template. Carry-over project sites should review their adoption of the template implemented during 2021 and make necessary modifications to the template and/or implementation process to ensure widespread use. New project sites must implement the documentation template no later than June 30, 2022. The template must include the documentation elements listed below. A copy of the template should be submitted with your 2022 QII Project Summary Report.
    - Indications for hysterectomy
    - Alternatives offered / tried / declined before having surgery (if appropriate, in non-cancerous diagnoses)
    - Contraindications to any alternative treatments
    - Preoperative ultrasound/imaging findings (except for prolapse)
    - Planned surgical approach and rationale

- **Goal #5** Implement/maintain a process for reviewing and monitoring uterine surgical specimens without pathology findings supporting the need for hysterectomy. (*Guidance note: These cases are those with pathology findings (e.g., normal, unremarkable, physiologic, reactive, or of minor importance) amenable to medical or surgical treatment less invasive than hysterectomy. In general, these changes would rarely require hysterectomy to relieve a patient of symptoms.). An overall findings summary (benign tissue rate, trends identified, action plans implemented) should be submitted with your 2022 QII Project Summary Report.

- **Goal #6**: Adopt use of the hysterectomy surgical approach algorithm (contained in the Hysterectomy Care Pathway posted on the MSQC website) at your facility. Include a brief summary of the algorithm implementation process in your 2022 QII Project Summary Report submission.

- **Goal #7:** Submit a **QII Project Summary** on or before **January 16, 2023**, which includes a narrative and activity tracking of the steps to implementation of the hysterectomy care pathway, quality measures, SSI outcome measure, successes and barriers, and analysis and next steps (a template is available on MSQC website). An additional 0-10 implementation points may be granted based on the detail of the project narrative, tracking log and analysis, to be added to achieve the maximum of 50 project points.

  The QII Project Summary submission must also include the following, provided separately, or integrated within the Summary:
  - All participating sites: Conduct at least one **multidisciplinary meeting** before **March 31, 2022,** that includes surgeons who perform hysterectomies (OB/GYN, general surgeons), nurses, quality specialists, pathologists, anesthesia, pharmacy and other relevant staff to discuss and establish the Hysterectomy Care Pathway, QI project measures, create/maintain a plan to ensure complete documentation of hysterectomy cases, distribute/discuss the hysterectomy surgical approach algorithm, establish a process for benign surgical specimen review, and establish a process for identification and review of hysterectomy cases with SSI or returns to ED related to surgery.
    - Project carry-over sites should use this opportunity to re-group, review prior year performance, and strategize how to sustain/improve performance. New project sites should use this opportunity to discuss how to implement the project. Meeting notes including attendees must be submitted.
    - Continuing sites: the meeting notes must also include analysis (PDCA, FMEA, RCA or other QI methodology) which was discussed by the team for all carry-over measures that did not meet the goals in 2021, and improvement strategies for 2022. Meeting notes including attendees must be submitted.

  - MSQC is committed to improving smoking cessation before surgery, please submit with your project the efforts your site has taken to increase the success of smoking cessation before surgery. Submit the materials that you are using for patient teaching and the process that is followed to identify smokers and connect them with cessation services.

  - Include a summary of the findings from your site's internal quality review process of each hysterectomy case with SSI or a return to ED related to the surgical procedure (from Goal #3).

  - Include an analysis on implementation/adoption of the hysterectomy documentation template, and how the template and/or process was modified to achieve widespread adoption. The documentation template must also be submitted (from Goal #4).

  - Provide a description of your site's benign uterine surgical specimen monitoring process, and an overall summary containing your benign tissue rate, any trends identified, and action plans implemented (from Goal #5).

  - Include a description of how the hysterectomy surgical approach algorithm was adopted at your facility, and how you monitor for compliance with use of the algorithm recommendations (from Goal #6).

Table A

Appropriate IV Prophylactic Antibiotics for Hysterectomy (administered within 60 minutes before incision)
Cefazolin 2g (3 g if weight ≥120kg) **AND** metronidazole 500mg[1]
Cefazolin 2 g (3 g if weight ≥ 120 kg)[2]
Cefotetan 2 g[2]
Cefoxitin 2 g[2]
Ampicillin-sulbactam 3 g (ampicillin 2 g/sulbactam 1 g) [2,*] *Due to increasing resistance of Escherichia coli to fluoroquinolones and ampicillin–sulbactam, local population susceptibility profiles should be reviewed prior to use.
[1]Till SR, Morgan DM, Bazzi AA, et al. Reducing surgical site infections after hysterectomy: metronidazole plus cefazolin compared with cephalosporin alone. Am J Obstet Gynecol 2017;217:187.e1-11. https://www.ncbi.nlm.nih.gov/pubmed/28363438 [2]Bratzler DW, Dellinger EP, Olsen KM, et al. Clinical practice guidelines for antimicrobial prophylaxis in surgery. Am J Health-Syst Pharm. 2013; 70:195–283. The entire Clinical Practice Guidelines from the American Society of Healthcare Pharmacists can be viewed here MSQC Hysterectomy Care Pathway (2019)

Table B: CPT Codes included in the project:

58150	58150: Total abdominal hysterectomy (corpus and cervix), with or without removal of tube(s), with or without removal of ovary(s)
58152	58152: Total abdominal hysterectomy (corpus and cervix), with or without removal of tube(s), with or without removal of ovary(s); with colpo-urethrocystopexy (e.g., Marshall-Marchetti-Krantz, Burch)
58180	58180: Supracervical abdominal hysterectomy (subtotal hysterectomy), with or without removal of tube(s), with or without removal of ovary(s)
58200	58200: Total abdominal hysterectomy, including partial vaginectomy, with para-aortic and pelvic lymph node sampling, with or without removal of tube(s), with or without removal of ovary(s)
58210	58210: Radical abdominal hysterectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling (biopsy), with or without removal of tube(s), with or without removal of ovary(s)
58260	58260: Vaginal hysterectomy, for uterus 250 g or less
58262	58262: Vaginal hysterectomy, for uterus 250 g or less; with removal of tube(s), and/or ovary(s)
58263	58263: Vaginal hysterectomy, for uterus 250 g or less; with removal of tube(s), and/or ovary(s), with repair of enterocele
58267	58267: Vaginal hysterectomy, for uterus 250 g or less; with colpo-urethrocystopexy (Marshall-Marchetti-Krantz type, Pereyra type) with or without endoscopic control
58270	58270: Vaginal hysterectomy, for uterus 250 g or less; with repair of enterocele
58275	58275: Vaginal hysterectomy, with total or partial vaginectomy
58280	58280: Vaginal hysterectomy, with total or partial vaginectomy; with repair of enterocele
58285	58285: Vaginal hysterectomy, radical (Schauta type operation)
58290	58290: Vaginal hysterectomy, for uterus greater than 250 g
58291	58291: Vaginal hysterectomy, for uterus greater than 250 g; with removal of tube(s) and/or ovary(s)
58292	58292: Vaginal hysterectomy, for uterus greater than 250 g; with removal of tube(s) and/or ovary(s), with repair of enterocele

58293	58293: Vaginal hysterectomy, for uterus greater than 250 g; with colpo-urethrocystopexy (Marshall- Marchetti-Krantz type, Pereyra type) with or without endoscopic control
58294	58294: Vaginal hysterectomy, for uterus greater than 250 g; with repair of enterocele
58541	58541: Laparoscopy, surgical, supracervical hysterectomy, for uterus 250 g or less
58542	58542: Laparoscopy, surgical, supracervical hysterectomy, for uterus 250 g or less; with removal of tube(s) and/or ovary(s)
58543	58543: Laparoscopy, surgical, supracervical hysterectomy, for uterus greater than 250 g
58544	58544: Laparoscopy, surgical, supracervical hysterectomy, for uterus greater than 250 g; with removal of tube(s) and/or ovary(s)
58548	58548: Laparoscopy, surgical, with radical hysterectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling (biopsy), with removal of tube(s) and ovary(s), if performed
58550	58550: Laparoscopy, surgical, with vaginal hysterectomy, for uterus 250 g or less
58552	58552: Laparoscopy, surgical, with vaginal hysterectomy, for uterus 250 g or less; with removal of tube(s) and/or ovary(s)
58553	58553: Laparoscopy, surgical, with vaginal hysterectomy, for uterus greater than 250 g
58554	58554: Laparoscopy, surgical, with vaginal hysterectomy, for uterus greater than 250 g; with removal of tube(s) and/or ovary(s)
58570	58570: Laparoscopy, surgical, with total hysterectomy, for uterus 250 g or less
58571	58571: Laparoscopy, surgical, with total hysterectomy, for uterus 250 g or less; with removal of tube(s) and/or ovary(s)
58572	58572: Laparoscopy, surgical, with total hysterectomy, for uterus greater than 250 g
58573	58573: Laparoscopy, surgical, with total hysterectomy, for uterus greater than 250 g; with removal of tube(s) and/or ovary(s)
58575	58575: Laparoscopy, surgical, total hysterectomy for resection of malignancy (tumor debulking), with omentectomy including salpingo-oophorectomy, unilateral or bilateral, when performed
58951	58951: Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo- oophorectomy and omentectomy; with total abdominal hysterectomy, pelvic and limited para-aortic lymphadenectomy
58953	58953: Bilateral salpingo-oophorectomy with omentectomy, total abdominal hysterectomy and radical dissection for debulking
58954	58954: Bilateral salpingo-oophorectomy with omentectomy, total abdominal hysterectomy and radical dissection for debulking; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy
58956	58956: Bilateral salpingo-oophorectomy with total omentectomy, total abdominal hysterectomy for malignancy