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### Title

The Continuous Residency Improvement Committee (CRIC) - A Novel Twist for Program Evaluation in an Academic Emergency Medicine Residency Program

### Permalink

<https://escholarship.org/uc/item/80n6h156>

### Journal

Journal of Education and Teaching in Emergency Medicine, 3(3)

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### Publication Date

2018

### DOI

10.5070/M533039846

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# INNOVATIONS

## The Continuous Residency Improvement Committee (CRIC) – A Novel Twist for Program Evaluation in an Academic Emergency Medicine Residency Program

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Submitted: February 20, 2018; Accepted: April 24, 2018; Electronically Published: July 15, 2018; <https://doi.org/10.21980/J8SD17>

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### ABSTRACT:

**Audience:** The continuous residency improvement committee (CRIC) innovation is designed for residency program leadership and residency program coordinators.

**Introduction:** The Accreditation Council for Graduate Medical Education (ACGME) requires residency-training programs to perform ongoing self-study in order to maintain accreditation status and to engage in continuous program improvement.<sup>1</sup> Standard evaluation constructs for self-study often fail to capture input from non-traditional stakeholders and do not always result in actionable recommendations for program improvement. We developed the CRIC process to address the need for a user-friendly evaluation construct that yields actionable recommendations for programmatic improvement from a variety of stakeholders and aligns with the ACGME-prescribed continuous self-study process.

**Objectives:** The purpose of this innovation was to develop a novel approach to continuous program evaluation and improvement using a multisource feedback design to improve resident satisfaction with the program's responsiveness to feedback while addressing the ACGME mandate for self-study.

**Methods:** A committee of rotating reviewers systematically evaluates resident educational rotations over a 12-month period. Reviews focused on obtaining input from both traditional and non-traditional stakeholders in a multisource model in order to document and address deficiencies identified within the rotations.

**Topics:** ACGME self-study, 360-evaluation, program evaluation, program evaluation committee.



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## Learner Audience:

Residency program leadership, residency program administrative staff

## Time Required for Implementation:

The leader will spend approximately 20 minutes orienting participants to the review process and specific reviewer worksheets. Individual reviewers will spend approximately 30 minutes reviewing relevant data prior to conducting interviews with key stakeholders, which may take between 20 and 60 minutes each month. Large group review of key findings will take between 20 and 30 minutes per month.

## Recommended Number of Faculty/Residents Needed to Implement this Innovation:

The ideal composition of the review committee is:  
2-3 faculty members involved with program leadership  
1-2 administrative staff involved with the residency program  
2-3 resident reviewers (ideally from a variety of postgraduate years)

Of note, this is a separate entity from the program evaluation committee; as such, the number of members is kept small to increase efficiency of the review meetings.

## Topics:

ACGME self-study, 360-evaluation, program evaluation, program evaluation committee.

## Objectives:

The primary goal of this innovation is to develop a novel approach to continuous program evaluation and improvement using a multisource feedback design to improve resident satisfaction with the program's responsiveness to feedback while addressing the ACGME mandate for self-study. Specific objectives include:

1. Conduct structured interviews of traditional (residents and rotation leadership) and non-traditional (administrative staff, nurses, program coordinators, general faculty, and off-service residents) sources during review of a rotation.

2. Identify specific, actionable recommendations for a rotation based upon information from structured interviews.
3. List short term "opportunities" and long-term "aims" for a rotation following group discussion of recommendations.
4. Discuss recommendations with rotation director and identify specific time frame for anticipated implementation of recommendations.
5. Assess implementation of specific recommendations at three-month follow-up meeting.
6. Compare results from ACGME resident survey to the questions are you "satisfied that program uses evaluations to improve" and "satisfied with process to deal with problems and concerns" from pre- and post-implementation years.

## Conceptual Framework:

The framework for the CRIC process of program evaluation outlined herein is grounded in the ACGME requirement for self-study and informed largely by Musick's Task Oriented Conceptual Model of Program Evaluation in Graduate Medical Education<sup>2</sup> which is defined by the following steps:

1. Determine the evaluation need: To satisfy ACGME self-study requirement and for program commitment to continuous improvement.
2. Determine evaluation focus: Specific rotations completed by emergency medicine residents.
3. Determine evaluation methodology: Evaluation occurs once a year for each rotation. Data is collected from multiple areas including rotation goals and objectives documents, rotation orientation materials, end-of-rotation evaluations from individual residents, and the results of personal interviews with rotation faculty, nursing, and administrative staff. Results are synthesized on standardized worksheet (appendix C).
4. Present evaluation results: Presented to program director and residency leadership at monthly meetings.
5. Document evaluation results: Summary document prepared by lead reviewer highlighting opportunities for improvement and long-term aims for rotation, which is shared with rotation director and reviewed by the CRIC on a biannual basis to ensure compliance with proposed recommendations for change.

## Linked objectives and methods:

Our CRIC process addresses several steps to the recommended self-study process on an ongoing basis for individual educational experiences in the emergency medicine residency program. These steps include gathering stakeholder input,



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analyzing opportunities and threats, aggregating and interpreting data, and sharing findings with stakeholders. Focusing on one educational offering at a time allows for identification, and subsequent implementation, of multiple deliverables in the form of rotation-specific improvements. Taken in aggregate, these changes were associated with substantial improvement in our resident perception of program responsiveness to feedback.

After one year of implementation, the CRIC process has generated an average of 4.4 “opportunity” recommendations per rotation and over seventy-five percent of CRIC recommendations had been successfully addressed. We believe the CRIC process will be a useful roadmap for other residency programs seeking to initiate a systematic method for improving their educational offerings. Importantly, the CRIC process simultaneously generates robust, detailed program improvement data to supplement the annual program evaluation (APE) as programs progress through the ACGME 10-year self-study cycle.

## Recommended pre-reading for instructor:

The CRIC leader should familiarize himself/herself with the standardized interview worksheets prior to the first committee meeting (appendix C) to ensure that reviewers are highlighting the appropriate areas in their focused reviews. The resident reviewer worksheet suggests a review of the residency handbook and residency survival guide entries to ensure details are updated, while the faculty reviewer worksheet asks reviewers to search for duty hours violations and to ensure that rotation goals and objectives are appropriate. Finally, the administrative worksheet asks reviewers to ensure evaluations are completed in a timely fashion and shared appropriately with learners. The CRIC leader should also be familiar with the contents of the preparatory packet for each reviewed rotation.

## Implementation Methods:

In implementing the CRIC model of program evaluation, residency rotations should be reviewed on a 12-month cycle with one to two rotations reviewed each month. Appendix A details the organization of the review process including the composition of our pilot group.

A preparatory packet of existing data and feedback is given to reviewers that includes key information such as program letters of agreement, orientation materials, and resident evaluations of a rotation (see example appendix B). These items are helpful for reviewing goals and objectives, and for ensuring orientation materials are up-to-date and relevant. Reviewers use a standardized interview worksheet as a guide to obtain stakeholder input from traditional (residents and program leadership) and non-traditional sources (administrative staff,

nurses, program coordinators, general faculty, and off-service residents) (appendix C). Aggregated feedback from each reviewer is presented at monthly CRIC meetings and used to identify specific recommendations for improvement. These recommendations may be further categorized as either easily achievable “opportunities” or loftier, long-term “aims.” Summary recommendations should be provided to the parent service/specialty hosting the rotation, and action plans should be defined, agreed-upon, and implemented for “opportunities.” Discussions should be advanced regarding achieving “aims” over time (Appendix D.)

## List of items required to replicate this innovation:

Standardized interview worksheets (included in appendix C)

## Detailed Methods to Construct:

1. Assemble team of reviewers for CRIC. The ideal composition of the review committee is:
  - 2-3 faculty members involved with program leadership.
  - 1-2 administrative staff involved with the residency program.
  - 2-3 resident reviewers (ideally from a variety of PGY years).
2. Review goals and objectives of process with committee.
3. Read through standardized interview tool with committee and discuss any areas of uncertainty.
4. Review expectations for time spent on each stage of review process: Individual reviewers will spend approximately 30 minutes reviewing relevant data prior to conducting interviews with key stakeholders, which may take between 20 and 60 minutes. Large group review of key findings will take between 20 and 30 minutes per month.
5. Schedule approximately 40 minutes at biannual program evaluation committee (PEC) meetings to assess implementation of recommendations for previously reviewed rotations.

## Detailed Implementation:

- Monthly CRIC meetings should be scheduled to last approximately 30 minutes.
- Participants should include the entire (CRIC):
  - 2-3 faculty members involved with program leadership.
  - 1-2 administrative staff involved with the residency program.
  - 2-3 resident reviewers (ideally from a variety of postgraduate years).
- Preparatory packets should be distributed to CRIC members 3 weeks before the monthly meeting.

Kraut A S, et al. The Continuous Residency Improvement Committee (CRIC)- A Novel Twist for Program Evaluation in an Academic Emergency Medicine Residency Program. *JETem* 2018. 3(3):11-26.

<https://doi.org/10.21980/J8SD17>



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- CRIC members should use individual worksheets to guide interviews with stakeholders in the 3 weeks prior to the CRIC meeting.
  - Interviews may occur in person or via phone and are arranged by individual CRIC members.
  - CRIC members should record the dates of interviews and the individuals with whom they met.
- CRIC members should synthesize notes from their interviews to complete the reviewer worksheets in the week prior to the CRIC meeting.
- During the 30min CRIC meeting, presentation of findings should be structured as follows:
  - 5 minutes for administrative review presentation.
  - 5 minutes for resident review presentation.
  - 5 minutes for faculty review presentation.
  - 15 minutes to review common themes and identify agreed upon opportunities and aims.
- An administrative member of the committee should be designated to record minutes for each CRIC meeting.
- Summative review of progress on CRIC opportunities and aims should be conducted bi-annually.
  - We suggest biannual summative review be conducted at biannual Program Evaluation Committee (PEC) meetings.

## Results and tips for successful implementation:

After several months of piloting this innovation, we discovered that it was helpful to limit the time for rotation review discussion to 30 minutes (maximum) each month. This helped to keep reviewers focused and succinct in their comments. Additionally, it was helpful to create a yearly schedule for new rotation review to help administrative staff compile the preparatory packets for reviewers.

We reviewed the responses on the annual ACGME Resident Survey to the questions are you “satisfied that program uses evaluations to improve” and “satisfied with process to deal with problems and concerns” prior to the implementation of CRIC (academic year 2014-2015) and following its implementation in July of 2015 (academic year 2015-2016). The ACGME Resident Survey was completed by 60 of 68 (88.24%) possible participants between 2014 and 2016.

The program percent compliance for the ACGME survey question are you “satisfied that program uses evaluations to improve” on the 2014-2015 survey (prior to the introduction of the CRIC) was 79% (mean 4.0 on a 5-point scale). Following the implementation of CRIC, the program compliance improved to 94% (mean 4.7). This was an absolute increase of 15% while the

national compliance remained relatively stable at 73% and 74% respectively (mean 4.0) as shown in Figure 1a.

The program percent compliance for the ACGME survey question are you “satisfied with process to deal with problems and concerns” on the 2014-2015 survey (prior to the introduction of the CRIC) was 79% (mean 4.0). Following the implementation of CRIC, program compliance improved to 91% (mean 4.6). This was an increase of 12% while the national average remained stable at 80% (mean 4.1 and 4.2 respectively) as shown in Figure 1b.

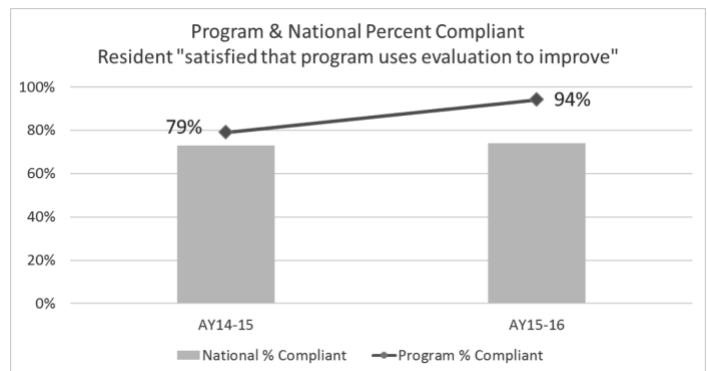


Figure 1a

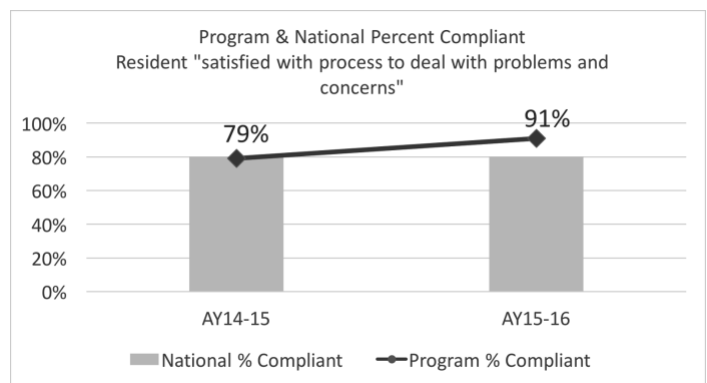


Figure 1b

Figure 1a and 1b: Graphical comparison of our program’s and the national percent compliance with the ACGME survey questions “satisfied program uses evaluations to improve” and “satisfied with process to deal with problems and concerns” for the academic year 2014-2015 and academic year 2015-2016.

## References/suggestions for further reading:

1. Phillibert I, Lieh-Lai M. A practical guide to the ACGME self-study. *JGME*. 2014;6(3):612-614. doi: 10.4300/JGME-06-03-55



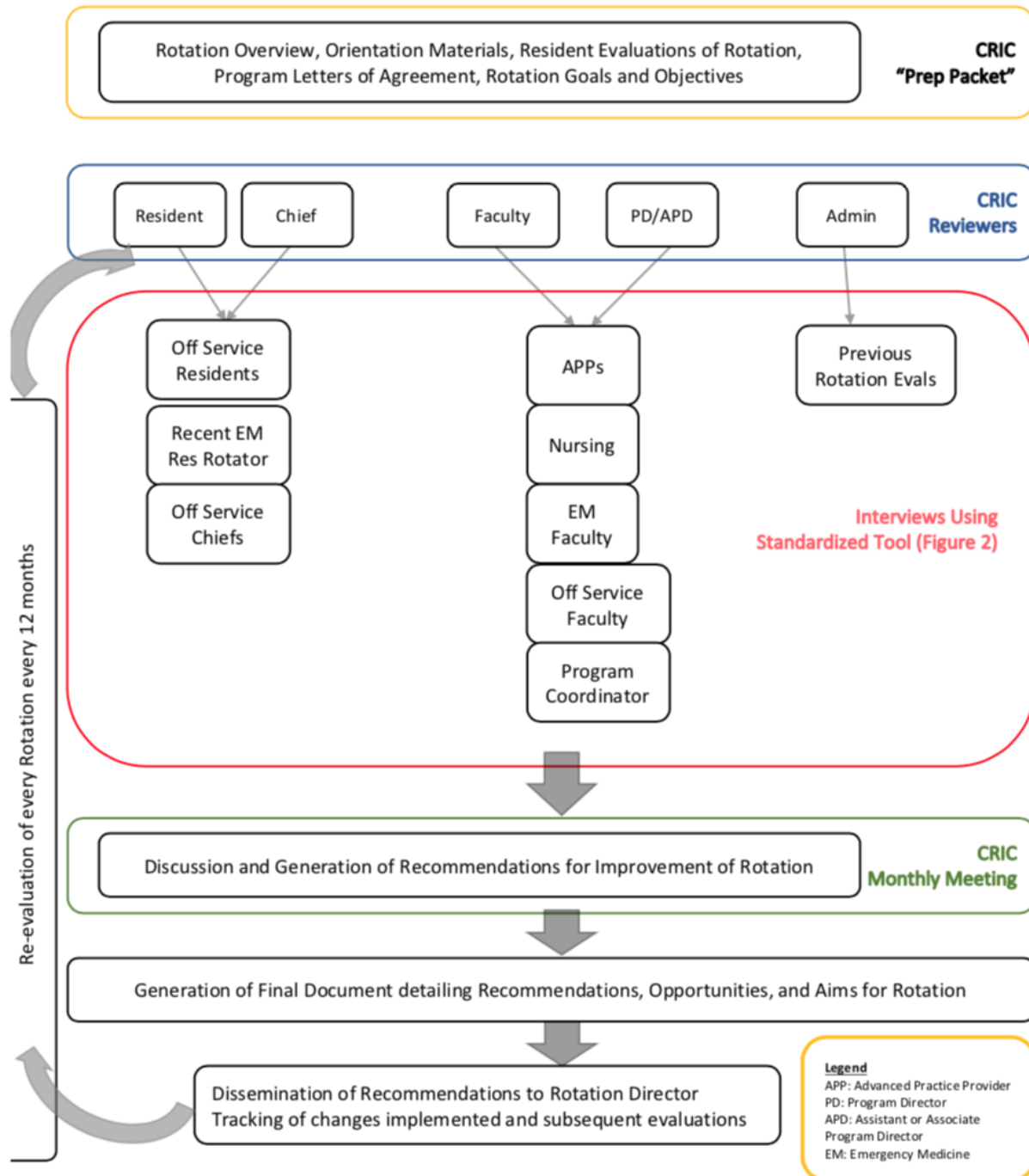
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2. Musick, DW. A conceptual model for program evaluation in graduate medical education. *Acad Med.* 2006;81(8):759-765.
3. Nasca T, Philibert I, Brigham T, Flynn T. The next GME accreditation system – rationale and benefits. *N Engl J Med.* 2012;366(11):1051-1056. doi: 10.1056/NEJMSr1200117



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## Appendix A: Graphical Representation of CRIC Process



**Figure 1.** Graphical depiction of the flow of the stages of the CRIC Process describing the materials disseminated to the reviewers, makeup of the team of reviewers, stakeholders interviewed, discussion and review process, and generation of summary recommendations.





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## Appendix B: Example of Preparatory Packet

### EM Year-1 Block Rotations

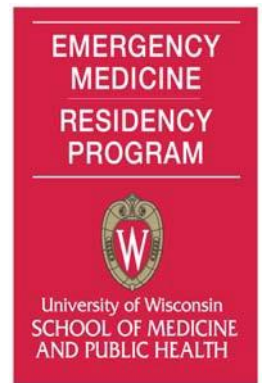
#### Obstetrics (Labor and Delivery) and Gynecology:

##### Educational Objectives:

- Recognize normal term pregnancy development and progression to labor
- Recognize and manage high risk pregnant patients with medical conditions such as diabetes, hypertension, and asthma
- Develop expertise in the diagnosis and management of emergent complications of pregnancy
- Demonstrate ability to perform uncomplicated full-term deliveries – observe, perform unassisted (minimum 10 deliveries)
- Describe and understand the management of complicated deliveries
- Understand indications, complications of cesarean section – if clinical situation allows observe and assist (5)
- Provide routine post-delivery care to patients
- Develop expertise in the management of the pregnant trauma patient including indications for peri-mortem caesarean section
- Through supplemental readings - become familiar with the following common obstetric conditions, symptoms, and disease presentations: abortion, ectopic pregnancy, HELLP syndrome, antepartum hemorrhage including abruption placentae and placenta previa, hyperemesis gravidarum, preeclampsia, eclampsia, Rh isoimmunization
- Become familiar with the following complications of labor: fetal distress, premature labor, premature rupture of membranes, uterine rupture
- Become familiar with the following complications of delivery: fetal malposition, nuchal cord, cord prolapse
- Become familiar in the management of postpartum complications including retained products, endometritis, hemorrhage, mastitis
- Perform first trimester ultrasounds; identify definitive sign of intrauterine pregnancy, determine fetal age and heart rate, and recognize the role of pelvic sonography in early pregnancy algorithm. Understand guidelines for first trimester of pregnancy ultrasound as outlined by American College of Emergency Physicians, and for ultrasound safety from American Institute of Ultrasound in Medicine.

##### Clinical Experience:

- Each Resident will rotate through this rotation for one 4-week block. Each resident will work under the supervision of an Obstetrics and Gynecology (Ob/Gyn) faculty member and senior Ob/Gyn resident. Each resident will work on both the labor and delivery floor and the triage center. On the labor and delivery floor, each resident will develop the knowledge and skills required to provide competent antepartum, intrapartum and postpartum care for uncomplicated obstetrical patients. In the triage center, each resident will provide assessment and develop management plans for patients







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presenting to obstetric triage. Each resident will keep a log of all procedures performed during the rotation.

## Supervision:

- The PGY4 is responsible for the clinical and educational activities of the daytime team. Dr.XXX will be the faculty mentor.

## Didactic Experience:

- The didactic experience includes bedside teaching by the supervising Ob/Gyn faculty member, as well as the “core” didactic series of conferences offered at Meriter Hospital by the department of Obstetrics and Gynecology. Each resident is assigned a particular OB topic to present during these didactic series. During this rotation, all residents are excused from routine clinical activities during M&M, Grand Rounds, Resident Didactics, and during regularly scheduled EM divisional conferences (held every Thursday).

## Resident Evaluation/Feedback:

- Resident evaluations and feedback will be both formal and informal. Each resident will be given ongoing feedback from all members of the team. The supervising Ob/Gyn faculty member will provide the Residency Program with written evaluations of the performance of the residents who participate in the program at the end of each rotation. Residents will also have an opportunity to evaluate the members of the team and the overall rotation. All evaluations are reviewed by the Program Director and placed in the resident’s files.



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Aggregate Evaluation Report - Resident Evaluation Of A Service/clinic [https://uwhealth-reports.medhub.com/functions/common/reports\\_output2.mh](https://uwhealth-reports.medhub.com/functions/common/reports_output2.mh)



UNIVERSITY OF WISCONSIN

Aggregate Evaluation Report - Resident Evaluation Of A Service/clinic

Generated: 12/30/2016 12:56pm EST

Evaluation: **Emergency Medicine Evaluation of a Rotation**  
Target: **MH - OB**

Date Range: **01/01/16-12/14/16**  
Responses: **10**

Unsatisfactory	Below Average	At Expectation	Above Expectation	Outstanding	Not Evaluated	
1	2	3	4	5	N/A	Avg (Std):
10.00%		30.00%	50.00%	10.00%		3.50 (1.0)
10.00%		70.00%	10.00%	10.00%		3.10 (0.9)
	10.00%	30.00%	20.00%	30.00%	10.00%	3.78 (1.0)
	10.00%	40.00%	40.00%	10.00%		3.50 (0.8)
		50.00%	10.00%	40.00%		3.90 (0.9)
		60.00%	30.00%	10.00%		3.50 (0.7)
	10.00%	50.00%	10.00%	20.00%	10.00%	3.44 (1.0)
	10.00%	20.00%	10.00%	60.00%		4.20 (1.1)
		40.00%	30.00%	30.00%		3.90 (0.8)
	20.00%	30.00%	40.00%	10.00%		3.40 (0.9)
		40.00%	30.00%	30.00%		3.90 (0.8)
	10.00%	40.00%	20.00%	30.00%		3.70 (1.0)
		30.00%	40.00%	30.00%		4.00 (0.8)
		30.00%	10.00%	60.00%		4.30 (0.9)
	20.00%	50.00%	10.00%	20.00%		3.30 (1.0)
	10.00%	50.00%	10.00%	30.00%		3.60 (1.0)

- Learning objectives for this rotation were clear and available prior to the start of the rotation.\*
- Standards for my expected level of performance (and how I was to be evaluated) were made clear at the beginning of this rotation.\*
- Conferences were scheduled regularly during this rotation, occurred as scheduled, and I was encouraged to attend them.
- I was provided sufficient opportunity to become involved in a variety of acute disease process presentations.\*
- I had adequate opportunities to become involved in and perform treatments and procedures relevant to the practice of EM.\*
- The volume of patients provided a wide variety of case mix and patient diversity.
- There were sufficient educational resources (computers, books, journals) available to me on this rotation.\*
- I was treated as a respected professional member of the health care staff.\*
- I received appropriate supervision for my level of training.\*
- I received an appropriate amount of clinical teaching during this rotation.\*
- The amount of patient care responsibility assigned to me was appropriate for my level of training.\*
- I had an appropriate amount of independence so as to become competent at relevant treatments and procedures.\*
- I felt supported and encouraged to ask questions and to offer my own differential diagnosis and treatment plan.\*
- The staff was available and approachable when I requested assistance.\*
- I received clear feedback during the rotation regarding my performance.\*
- My overall educational experience in this rotation met my expectations and the learning objectives outlined at the beginning of the rotation.\*

17. What were the strengths of this rotation?

Good exposure to normal labor and delivery.

lots of deliveries. become very comfortable with pelvic exams

experience with vaginal delivery and peri-delivery management

The experience with deliveries and complications of pregnancy

Hands on experience

Great opportunity to deliver many vaginal births

Steady flow of exposure, independence of evaluation and management in triage situations

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	<p>Co-residents, nursing staff were exceedingly helpful, very professional</p> <p>Team</p> <p>Great teamwork atmosphere, supportive faculty</p>
<p>18. What were the weaknesses of this rotation?</p>	<p>we put in a lot of working hours just to get our delivery requirement accomplished</p> <p>low patient volume</p> <p>Expectations were very unclear. I also did not get experience with sick patients, as those cases went to my senior residents and I was not involved in the care of those patients. I did not feel that I was incorporated as part of the team.</p> <p>Generally little independence managing sick patients</p> <p>Ultrasound</p> <p>High volume of patients on Sundays as we are the only intern on staff, as an EM intern, this can be dangerous for patient care</p> <p>Floor work not as relevant to ED residents, not a lot of attending teaching</p> <p>Volume of deliveries</p> <p>Timing of ultrasound experience was not ideal. Floor responsibilities delayed getting to the Ultrasound area, and 2 out of 3 days there were no cases after 2 pm to observe.</p> <p>N/A</p>
<p>19. Is there one or more faculty you would like to nominate for the EM Teaching Award?</p>	



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Resident and faculty supervisor to complete together after induction of the last case of the day. Residents should keep cards for review with Dr. XXX at the end of rotation.

<b>Resident:</b>	<b>Evaluator:</b>	<b>Date:</b>
What did the resident do well?		
What is a growth area for this resident?		
What OB topics were covered today?		
Please log procedures done today (with MRNs):		
Evaluation discussed with resident?		Y/N

Resident and faculty supervisor to complete together after induction of the last case of the day. Residents should keep cards for review with Dr. XXX at the end of rotation.

<b>Resident:</b>	<b>Evaluator:</b>	<b>Date:</b>
What did the resident do well?		
What is a growth area for this resident?		
What OB topics were covered today?		
Please log procedures done today (with MRNs):		
Evaluation discussed with resident?		Y/N



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## Survival Guide Tips: OB

There used to be an OB handbook for the ED interns. Ask your OB senior to see if this is available for your reference. One copy is kept on the labor floor and one in triage. Dr. XXX will serve as the faculty mentor to you while on the rotation; the PGY4 is responsible for the clinical and education activities of the daytime team. Wear blue hospital scrubs.

Prior to starting you need to complete Meriter EPIC training, which should have been completed already during orientation month.

### EM Conference

- EM interns on OB should **return to Meriter by 1:30pm** on Thursday conference days. Please call your senior resident to check in when you return back from conference.

### Evaluations

- You will receive end-of-shift evaluation cards from the UW EM Administrative Staff (Saby) to be distributed to OB staff
- Use these cards as a means to start a feedback conversation
- These cards should be given to attendings as follows: after each “shift” for the UW faculty, after each delivery for the non-UW faculty
- You should collect these cards from the OB faculty and return them to UW EM Offices

### GYN Consults

- During downtime on OB, you should ask your OB chief whether it is OK to contact the GYN chief to help participate in GYN consults in the ED
- OB patient care responsibilities should come first; once these are completed, EM residents may help with GYN consults at the discretion of the OB and GYN Chiefs

### Ultrasound at Meriter

- Please let Dr. XXX know immediately if you are pulled from your scheduled ultrasound experience while on OB as this is a high priority experience for EM residents while rotating

### Parking:

In the Patient Hospital Parking lot. Residents are instructed to park on or above the 5<sup>th</sup> floor. You will receive a sticker to place in the window of your vehicle during EPIC orientation at Meriter. Use your Meriter hospital badge to swipe in and out of the parking lot near the pay station. Cost is \$10 in cash for the month which you bring to Meriter EPIC orientation.

### Meriter ID and Parking pass:

You should be able to take care of this during your EPIC training. If not, do the following when you can on your first day. Your Meriter ID is necessary to use parking, gain access to the OR, and get scrubs. (The scrubs are the same as the UW Hospital Scrubs).

- Go to Guest Services on the 2<sup>nd</sup> floor to obtain your ID, which is also your access in and out of the

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parking garage. (You will need a \$10.00 deposit in cash and your license plate number for the parking tag.)

## Rounds:

Meet OB interns at 0600 hours on 6<sup>th</sup> floor, north wing (post- partum patients) to round on patients and write notes, then head downstairs to 5<sup>th</sup> floor North wing (high risk prenatal patients) to help seniors with any patients that have not been seen. Finally head to 4<sup>th</sup> floor North wing (labor and delivery) if you will be the floor intern that day to receive sign-out from overnight floor intern which must be completed by 0700. Meet in 5<sup>th</sup> floor conference room/sim center at 0700 for high risk prenatal rounds (done by seniors, you don't present patients for these), bring coffee/breakfast. Your badge won't scan you into this room so tag along with other interns or knock.

- The patient list will be printed off EPIC and left by the resident computers on floors 5 and 6– Do not round on patients who have been highlighted or crossed-out. **\*\*\*Do not round on midwife (CNM) or XXX patients. Sign up for 4 or so patients on 6<sup>th</sup> floor each day.**
- You may be working with M3's. If they share their note you can only "steal" their note if you copy and edit it before submitting, but be especially careful you have edited it appropriately and agree with it since submitting it saves time, but you accept responsibility for note contents.
- After 7am high risk prenatal rounds in the sim center, the whole group will then walk over to L&D for "Team Steps" at 7:15 AM to run the board with the nursing staff. EM residents listen in but do not present. Afterward, there will be ~30min of didactics before you break off to start the day (unless there are pressing matters in triage or L&D).
- Food: Free from the cafeteria up to \$4.50/meal when you tell Food Service you are on call (note: **You are always on call**).

## Daily Schedule:

You will be assigned to either L&D floor, float, or triage.

## Floor:

On the floor you follow the patients who are already in active labor, admit patients who come to triage in active labor, or admit patients for planned IOL (induction of labor). You need to check on them, do a sterile cervical check with the nurse every 2 hrs if in active labor or each time an induction agent is started/ends, and write a progress note. Usually you discuss these patients directly with the attending on call. You need to notify the attending with any questions, if an epidural is requested, or when the patient is completely dilated. (The attending needs to be in-house for an epidural to be placed.) You will stay in house until 7pm, when the night float resident arrives.

## Triage:

When in triage, you will see all the patients that come in; generally labor evals, evaluation of spontaneous rupture of membranes (SROM), abdominal trauma, pre-eclampsia, or vaginal bleeding. Note that if your OB colleagues are in surgery, you may need to cover both the floor and triage.

- Typically, you will see the patient, obtain a brief history and physical.
- If in labor, conduct an abdominal US to confirm vertex position!
- If the patient needs a BPP (biophysical profile), then call the senior resident.

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- The triage resident usually stays until 7pm but may be able to leave around 5pm if it is not busy. Triage can be empty in the mornings; give your pager to the triage nurse and ask to be paged if a patient needs to be seen. You can hang out in the surgical lounge on the 4th floor, the doctor's lounge by the cafeteria, or the resident call room on the 5th floor. Ask your resident to show you these areas.

## Float:

If there are 3 interns on service, one will be assigned to float between L&D and triage. Your job is simply to help out as needed, but you will almost always be covering the floor or triage when the OB interns go in on scheduled or crash C-sections. The float will be the first intern to leave for the day, sometimes around 4pm. Work out among the interns who goes home at what time.

## Documentation:

In general, every patient needs the following:

- History and physical (H&P) for admits or triage note for discharges: Know Group B Strep (GBS) status, Blood type, Pre-natal Labs. Ask about fetal movement, vaginal bleeding/discharge, loss of fluid, contraction frequency or duration, etc.
- Admission orders:
  - Use labor admission order set.
  - No labs needed **unless** patient has not yet gotten prenatal lab.
  - For normal labor, activity is ad lib and diet is regular
  - Antibiotics: if patient is GBS+ use penicillin (PCN). If PCN allergic, use ceftriaxone or clindamycin. If pt. is PCN allergic and her GBS is resistant to ceftriaxone and clindamycin, then you need to write orders for vancomycin IV 1gm q 8 hours.
  - Fluid: LR run at a rate of 125ml/hr
- Common Language
  - Amnisure: Test for SROM
  - AROM: artificial rupture of membranes
  - BPP: biophysical profile
  - BS&O: Bilateral salpingo-oophorectomy
  - CD: Cesarean delivery
  - CEFM: continuous electronic fetal monitoring
  - D&C: Dilatation and curettage
  - D&E: Dilatation and evacuation
  - FFN: fetal fibronectin
  - FHT: fetal heart tones
  - IOL: Induction of Labor
  - IUP: intrauterine pregnancy
  - KB: Kleihauer-Betke – used to measure amount of fetal Hb (hemoglobin) in mother's circulation
  - NST: non-stress test
  - PIH: pregnancy-induced hypertension
  - PROM: premature rupture of membranes (ie, before

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the onset of contractions)

- PPROM: preterm PROM (< 37 weeks)
- PTL: Preterm labor (<37 wks.)
- SAB: Spontaneous abortion
- SROM: spontaneous rupture of membranes,
- SSE: sterile speculum exam
- SVD: Spontaneous vaginal delivery
- SVE: sterile vaginal exam
- TOLAC: trial of labor after C-section
- VBAC: Vaginal birth after cesarean

## Common Conditions and Indicated Work-up

*\*See OB intern manual for most up to date information.*

### *Spontaneous Rupture of Membranes*

- Sterile speculum exam (amnisure/ ferning / pooling / nitrizine)
- Verify position of fetus with ultrasound (US)
- Verify GBS status and if + start antibiotics

### *Decreased Fetal Movement*

- NST (see below)
- If nonreactive, obtain BPP (Sr. Resident will perform)
- If no heart beat call attending

### *Vaginal Bleeding*

- Painful = abruption / trauma
- Painless = previa / sentinel bleed / bloody show, friable ectropion
- Labs: CBC, KB, fibrinogen, prothrombin time (PT)/partial prothrombin time (PTT), check Rh status
  - If KB > 30mm and Rh (-) then give Rhogam
  - Ultrasound prior to speculum exam to rule-out previa
  - Sterile speculum exam

### *Pre-eclampsia*

- Pregnancy-induced HTN (hypertension) vs. Pre-eclampsia
- Pre-eclampsia associated symptoms: HA, n/v, visual changes, RUQ (right upper quadrant) pain, weight gain
- Serial blood pressures
- Labs: Urine dip for protein, urinalysis (U/A), complete blood count (CBC), BUN/Creatinine, liver enzymes, Uric acid

### *Abdominal Trauma*

- If direct abdominal trauma – monitor mom and baby for 4 hours
- If no direct trauma – perform exam, NST and monitor for PTL
- Send abruption panel (CBC, KB, fibrinogen PT/PTT, Rh)

### *PTL (< 37 weeks)*

- Sterile speculum exam – obtain gonorrhea/chlamydia, GBS, wet mount, FFN (24 – 34 weeks), nitrizine / ferning



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- o Blood, semen and bacterial vaginosis can cause false + nitrizine test and cervical mucous can cause false + ferning
- U/A, US
- IVF hydration
- Continuous monitoring
- Stop contractions with terbutaline 0.25mg subcutaneously, magnesium sulfate or nifedipine
- If < 32 weeks with ROM or < 34 weeks give betamethasone 12mg IM q 24 hours x 2 or Dexamethasone 6mg IM q 12 x 4

## *GBS Antibiotic Indications*

- History or previous infant with invasive GBS disease, GBS bacteriuria, (+) screening culture or unknown GBS status and < 37 weeks or membrane rupture > 18 hours or Temp > 100.4

## *Chorioamnionitis or endometritis*

- Risk factors: PROM, amniocentesis, multiple vaginal exams, sexually transmitted infections, internal monitor
- DX: Ruptured membranes with Temp > 38 plus uterine tenderness, WBC > 15 with L shift, fetal tachycardia > 160, maternal tachycardia or foul smell
- Tx: Ampicillin + Gentamycin or Unasyn or Cefotetan (Add clindamycin if c-section).

## *Fetal Heart Tracings Accelerations:*

- suggest there is no acidosis

## *Decelerations*

- Early: compression of fetal head induces vagal response
- Late: fetal hypoxia secondary to uteroplacental insufficiency (uterine hyperstimulation, anesthesia, microvascular disease of placenta, abruption)
- Variable: Compression of umbilical cord

## *BPP*

- (NST, Assess Fetal breathing, body movement, FLX/EXT (flexion/extension) tone, amniotic fluid index)
- Activities that present earliest in fetal development are the last to disappear with hypoxia
- 1<sup>st</sup> to appear / last to be lost = tone
  - o 2<sup>nd</sup> = body movement
  - o 3<sup>rd</sup> = breathing
  - o 4<sup>th</sup> = NST / Heart rate control

## *Post-Partum Note (Steal templates from OB interns):*

S: breast feeding, lochia

O: vitals

PE: heart, lungs, abdomen, fundal height / firmness

A/P: contraception, discharge planning

## *Delivery Note (Steal templates from OB interns):*

Normal spontaneous vaginal delivery (or forceps / vacuum assisted) of live male/female infant of Xlb Xoz over intact perineum (or degree of laceration) with / without epidural anesthesia.

(Comment on meconium, bulb suctioning at the perineum and nuchal cord.) Cord clamped and cut.



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Spontaneous delivery (or manual) of the placenta with 3 vessel cords. Fundus is firm and perineum was inspected for lacerations. (If laceration describe repair: anesthesia, type of suture.) Estimated blood loss X ml. Mother and baby in room doing well.

### APGAR Score:

Components / Score	0	1	2
Appearance	Blue all over	Blue extremities Pink body	No cyanosis
Pulse	absent	< 100	> 100
Grimace	No response to stimulation	Grimace with stimulation	Sneeze/cough or pulls away with stimulation
Activity (tone)	None	Some FLX	Active Movement
Respiration	Absent	Weak / irregular	Strong



# INSTRUCTOR MATERIALS

Aggregate Evaluation Report - Resident Evaluation Of A Service/clinic [https://uwhealth-reports.medhub.com/functions/common/reports\\_output2.mh](https://uwhealth-reports.medhub.com/functions/common/reports_output2.mh)



UNIVERSITY OF WISCONSIN

## Duty Hours by Service

Generated: 12/30/2016 1:02pm EST

Dates: 07/01/2016 - 12/30/2016

RESIDENT:	ON SERVICE		TOTALS			AVERAGE/WEEK		16/24+4hr Period Violations**	8hr Rest Occurrences**	10hr Rest Violations**	COMMENTS/NOTES
	DAYS	DATES	DAYS REC.	HRS	DAYS OFF*	HRS	DAYS OFF*				
Released Service: <b>MH - OB (1) (OB R)</b>											
			216.0	4	72	1.3	0	0	0		
			216.5	4	72.2	1.3	0	0	0		
			215.0	3	71.7	1	0	0	0		
			197.0	5	65.7	1.7	0	0	0		
			132.0	2	71.1	1.1	0	0	0		
			218.0	3	72.7	1	0	0	0		8/21-8/27/16: Other (explain below) - Returned for required didactics
<hr/>											
Service Subtotal:	124	--	118	1194.5	21	70.9	1.2	0	0	0	
<hr/>											
Total:	124	--	118	1194.5	21	70.9	1.2	0	0	0	

\* Note: days off defined as a calendar day with no recorded activity (not any 24 hr period)

\*\* Note: 24+6/10hr Rest violations only tested for periods of 7 or more consecutive days on the same service

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# INSTRUCTOR MATERIALS

## Appendix C: Reviewer Worksheets

University of Wisconsin Hospital and Clinics  
Department of Emergency Medicine  
Educational Activity Review Worksheet  
Resident Reviewer Worksheet

Rotation name:

Resident name:

CRIC date:

Interviewee names and dates:

### Rotation Strengths & Weaknesses

Please identify 3 strengths of the rotation

Please identify 3 weaknesses of the rotation

Does the Residency Handbook or Survival Guide need to be updated?

What specific concerns need to be addressed during this academic year?

*Please keep in mind the following issues when considering your responses:*

### Organization

#### Orientation

Are the orientation materials easily accessible?

Ease of working with rotation support staff?



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## Expectations

- Are the rotation expectations clearly communicated?
- Are the rotation expectations being met?

## Goals and Objectives

- Are the rotation goals and objectives distributed?
- Are they discussed?
- Are they being met?

## Scheduling

- Is the schedule easily accessible?
- How is it published?
- Does the schedule comply with ACGME duty hour rules?

## Adequacy of resources

- Call rooms, meals, financial support, required and supplemental reading materials

## Clinical Experience

### Relevance

- Is the experience relevant to your practice of Emergency Medicine?
- Patient volume, diversity, and acuity
- Procedural competency

### Adequacy of teaching

- Clinical/bedside teaching: quality, faculty participation
- Didactics: quality, faculty participation
- Does the presence of other learners interfere with education?

### Adequacy of supervision

- Faculty availability

## Evaluation/Feedback

### Evaluation of the resident by faculty

- Real-time feedback
- Resident global assessment
- Are you satisfied with the current mechanisms for feedback and evaluation?

### Evaluation of the resident by faculty

- Are you satisfied with the current mechanisms for feedback and evaluation?



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University of Wisconsin Hospital and Clinics  
Department of Emergency Medicine  
Educational Activity Review Worksheet  
Faculty Reviewer Worksheet

Rotation name:

Faculty name:

CRIC date:

Interviewee names and dates:

## Rotation Strengths & Weaknesses

Please identify 3 strengths of the rotation

Please identify 3 weaknesses of the rotation

Opportunities for improvement (*include duty hours violations, misaligned Goals/Objectives*)?

Specific threats that need to be addressed during this academic year?

---

\*Please save final document in following format:  
(Rotation name) - Lead Review.(reviewer initials).doc

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University of Wisconsin Hospital and Clinics  
Department of Emergency Medicine  
Educational Activity Review Worksheet  
Administrative Reviewer Worksheet

Rotation name:

Admin name:

CRIC date:

## Evaluations

### Resident Evaluation by Faculty

What mechanisms are currently utilized for evaluation and feedback?

Are the evaluations core competency based?

Are the evaluations milestone based?

Does the evaluation mention the rotation goals and objectives?

Who (faculty, fellow, staff) is providing the evaluation and feedback?

Compliance: how frequently are we receiving the evaluations?

Are these evaluations submitted in a timely manner?

Are these evaluations complete?

Do the residents have access to this information?

Does program leadership have access to this information?

### Rotation Evaluation by Residents

What mechanisms are currently utilized for evaluation and feedback?

Compliance: how frequently are we receiving the evaluations?

Are these evaluations submitted in a timely manner?



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Are these evaluations complete?

Does program leadership have access to this information?

## Residency Handbook, Program Letter of Agreement, Survival Guide, and Med Hub

Are these items consistent with one another?

Identify specific areas that require updates or improvement:

Does the PLA need to be updated (standard update is 5 years)?

Are the rotation materials up to date in Med Hub?

---

## Strengths & Weaknesses

Please identify 3 strengths of the rotation:

Please identify opportunities to enhance the rotation experience:

Please identify 3 weaknesses of the rotation:

Please identify any threats (institutional, local, regional and/or national):

Based on your review, what specific concerns need to be addressed during this academic year?



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## Appendix D: Example of Summary Sheet for Reviewed Rotation

### EXAMPLE TEMPLATE

#### University of Wisconsin Emergency Medicine Residency Program Focused Review Summary

##### **Program Reviewed:**

Date of Current Review:

**Date Last Review:** N/A

##### **Review Panel:**

Lead Reviewer:

Faculty Reviewer:

Chief Reviewer:

Resident Reviewer:

Administrative Reviewer:

##### **Materials Used:**

Interviews:

Faculty interviews:

Resident interviews:

##### **Data:**

Eval of a service (exact name of eval)

Duty hours (Dates)

PLA

Goals & Objectives

Personal correspondence regarding resident experience

Resident Survival Guide

##### **Review Process:**

This focused review was conducted according to the UWEMRP Focused Review Process. Reviewers were provided with Preparatory Packets including the following materials, if applicable: Aggregate Rotation Evaluation (MedHub), Rotation Goals & Objectives, Program Letter of Agreement, Resident Handbook & Survival Guide sections, and relevant correspondence. Each member of the review team interviewed relevant stakeholders and completed reviewer worksheets aimed at identifying key strengths and areas of concern. Reviewers presented their findings at the **XX/XX/XXXX** Emergency Medicine Education Committee meeting for discussion. Then, the Lead Reviewer conducted a final review all of the data presented to synthesize key findings and recommendations which are detailed below. These recommendations will be shared with the



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Rotation Director, the Emergency Medicine Program Evaluation Committee, and the Chair of the Department of Emergency Medicine.

## Key Strengths:

- High relevance to emergency medicine skillset
- Residents well-integrated into the team, good working relationship with OB residents
- Residents consistently meeting rotation goals: deliveries, comfort evaluating and managing pregnant patients
- Residents are well-supervised

## Concerns:

- Orientation--could be more robust and consistent
- More formal & informal feedback desired
- Variable EM resident return from Thursday conferences leads to tension
- Residents on US getting pulled to cover floor and Triage
- Previously-arranged ED consult workflow unsuccessful

## Recommendations & Proposed Solutions:

**(Address each concern with an action statement and list concrete possible steps and solutions.)**

- Improve Orientation Process
  - Work with OB Program/Chiefs to standardize Chief's Orientation on first day
  - Ensure consistent access to high-yield resources- resident desktop, OB survival guide
  - EM admin to help by sending monthly reminder emails to rotating OB Chiefs regarding EM rotators
- Enhance teaching & resident feedback
  - Provide feedback to non-UW staff regarding desire on EM residents' part to have greater teaching and engagement
  - Consider implementing EM residency Feedback Cards to facilitate feedback
- Improve communication regarding resident return from conference
  - Standardize return from conference time
  - EM will commit to residents returning at 1:30 every Thursday for the year, regardless of conference timing
- Protect US experience
  - Review with OB Chiefs high-priority placed on this experience for EM residency programs (monthly reminder email)
  - ED residents report frequency of being pulled from US clinic to Dr. XXX
- Consider implementing ED consults

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- Change workflow such that EM resident responsible for seeking the experience during downtime by calling Gyn team (with OB Chief approval). OB Chiefs notified of this process (monthly reminder email).

### **Additional Feedback:**

**(Additional feedback to convey that may not be high-priority for purposes of Education Committee Review.)**

- Perinatal conference less valuable than other educational opportunities
- Residents requesting to actively participate in Strip Rounds