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## TEAMWORK AND COMMUNICATION

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Effective communication and teamwork are essential components of obstetric safety and quality.<sup>1</sup> Communication breakdowns and failures of organizational culture and teamwork have consistently ranked among the top three leading contributors to reported maternal and newborn sentinel events.<sup>2,3</sup> While it is difficult to link specific, discreet communication strategies to changes in patient outcomes, there is evidence that sustained attention to communication, teamwork, and safety can indeed improve perinatal outcomes.<sup>4-6</sup> Furthermore, empowerment of staff to speak up when they see problems or lack of protocol compliance has been a central component of initiatives to reduce or eliminate complications such as central line infections that were previously deemed unpreventable, and teamwork training substantially reduced surgical mortality.<sup>7-10</sup> However, multiple studies suggest that clinicians frequently may remain silent about their clinical concerns even when they know or believe that harm could potentially result from continuing with planned care.<sup>11-15</sup> Patients can also identify clinical deterioration and lack of protocol compliance, but often feel ignored if and when they raise concerns.<sup>16-18</sup> The seven U.S. professional organizations for clinicians who care for childbearing women assert that shared decision making, effective communication, and effective teamwork are fundamental tenets of quality patient care.<sup>1</sup> These principles are especially important in the setting of complications such as preeclampsia/eclampsia, where the potential for catastrophic problems is elevated and early identification and communication of disease progression is essential for effective management.<sup>17</sup>

Preeclampsia/eclampsia was the second leading cause of maternal deaths in the 2002-2003 California Pregnancy-Associated Mortality Review.<sup>19</sup> For women whose deaths were reviewed, clinician factors were identified as contributory to the death in 78% of cases, and facility or system level factors were identified as contributory to the deaths in 57% of cases. Overall, 48% of preeclampsia/eclampsia deaths were determined to have a strong or good chance to alter outcomes. Delays or failures in treatment, misdiagnosis, and denial of the severity of women's illness were key factors contributing to fatal outcomes.<sup>19</sup> Failures in communication, including silence in the face of clinical concern and lack of listening skills or responsiveness to concern, are likely to have contributed to delays, misdiagnosis, and treatment failures. Therefore, creating an environment where all staff—regardless of formal or informal status within the medical and organizational hierarchy—can and will speak up about their clinical concerns is critical to implementing clinical practice changes to improve preeclampsia outcomes and clinical safety.

Effective, highly reliable teams are preoccupied with the potential for failure and therefore collectively monitor and crosscheck each other and clinical processes to proactively identify potential problems. It is essential that perinatal units create an environment where

all staff are empowered to “stop the line,” or formally interrupt planned care and procedures to check safety when they observe there is potential for harm.<sup>20,21</sup> Key skills include the ability of all staff, patients, and family members to speak up about concerns with persistence until a mutually agreeable resolution is established, and the ability to listen to each other and respond in a supportive manner regardless of whether or not they agree with their peers.<sup>1,22</sup> Established strategies for improving communication and teamwork are well delineated nationally and internationally, and are outlined in Table 1.<sup>17,23</sup>

Perspectives on the best course of action for a woman with preeclampsia in specific clinical situations may vary between physicians, midwives, nurses, the woman, and the woman’s family members (see Table 2). Managing conflict traditionally has been difficult for clinicians. Key skills for handling conflict effectively include: a) addressing it rather than letting concerns fester; b) taking the time to listen carefully to the concerns of others; c) setting aside assumptions, especially regarding what motivates others’ behavior; d) being willing to own part of the problem. When clinical disagreements are approached with a spirit of inquiry, good will, active listening, and dedication to shared decision-making, they can often be resolved quickly and in a manner that builds continued trust between team members.<sup>22</sup> In the event that concerns cannot be resolved using these or other communication strategies, all clinicians, including registered nurses, have an affirmative duty to pursue their concerns through the institutional chain of authority (Figure 1, pg. 58).<sup>24</sup>

Culture shifts including communication and behavior change require commitment from all staff across all disciplines. Numerous training models are available to assist in assessment, development, implementation and evaluation of communication and collaboration in complex settings. Findings of interdisciplinary team training have suggested that focused training contributes to optimizing human performance and reducing human error.<sup>17</sup>

## **RECOMMENDATIONS FOR QUALITY IMPROVEMENT**

### Recommendation Strength B-C

- 1) All units should adopt the principles outlined in “Quality Patient Care in Labor and Delivery: A Call to Action.”<sup>1</sup>
- 2) Adoption of standardized protocols supports effective teamwork. Units should standardize protocols for risk assessment, medication selection and administration, and parameters for patient monitoring and primary provider notification.
- 3) Policy, procedure, and unit culture should outline clear lines of communication and clear avenues for escalation when appropriate.
- 4) Administrators must support clinicians and patient who raise concerns.
- 5) Conduct routine briefings and debriefings for patients with preeclampsia.

**Table 1. Communication Strategies to Foster Mutual Respect and Shared Decision-making (30)**

Briefings	<ul style="list-style-type: none"> <li>• Set tone for team interaction</li> <li>• Can be a routine part of board rounds, huddles, handouts and bedside rounds</li> </ul>
Debriefings	<ul style="list-style-type: none"> <li>• Used to identify what happened, what was learned, and what can be done better next time</li> <li>• Can be team-building in real patient situations as well as simulation learning</li> </ul>
Assertive Language	<ul style="list-style-type: none"> <li>• Effective assertion is persistent, polite, timely, clear and solution focused</li> <li>• Using “CUS” as a guideline: “I’m Concerned,” “I’m Uncomfortable,” “this is a <b>Safety Issue</b>”</li> </ul>
Critical Language	<ul style="list-style-type: none"> <li>• Ensures that specific, relevant, critical information is communicated; example: SBAR (Situation, Background, Assessment, Recommendation)</li> </ul>
Closed Communication Loop	<ul style="list-style-type: none"> <li>• Receiver of information restates what was said to the sender to ensure correct understanding.</li> <li>• Reinforces the importance of effective listening</li> </ul>
Call Outs	<ul style="list-style-type: none"> <li>• Used to confirm the phase of a process</li> </ul>

Adapted from: Teamwork and Communication Working Group. Improving patient safety with effective teamwork and communication: Literature review needs assessment, evaluation of training tools and expert consultations, 2011. Edmonton (AB): Canadian Patient Safety Institute; TeamSTEPPS®: Strategies and Tools to Enhance Performance and Patient Safety, Agency for Healthcare Research and Quality, and Quality Patient Care in Labor and Delivery: A Call to Action. *J Midwifery Women’s Health*. 2012; 57(2):112-113 and *J Obstet, Gynecol Neonatal Nurs*. 2012;41(1):151-3.

### **Example dialogue—Closed Communication Loop**

**Nurse:** Hi CNM Jones, this is Nurse Smith, calling about Ms. Green in room 27 at XYZ birth center. She is 39-3/7 weeks G1P0 admitted for nausea and vomiting this morning. Her blood pressure is 150/92, no proteinuria on dip UA, but she has a sudden severe headache. I am concerned and would like you to come over now to evaluate her.

**CNM:** Thanks Nurse Smith, I’m going to be over later to rupture her membranes and get this labor going. She must be miserable from all that vomiting and probably has the flu.

**Nurse:** Hmm. I understand the vomiting could be a GI bug. But I’m concerned that the signs and symptoms Ms. Green is demonstrating could also be atypical preeclampsia, and if so, the headache would make it severe preeclampsia. I really think she needs a workup now and you should come over to evaluate her. When can I expect to see you?

**CNM:** Oh, I see. Please draw xyz labs right away. I’ll be right over, and I’m calling the OB back-up now. Thanks for clarifying your concerns.

**Nurse:** Ok great. I’ll draw x, y, and z labs right away. I’ll let Ms. Green know you’ll be in to see her in about 15 minutes.

**CNM:** Agreed, thank you.

**Table 2. Approaches for improving communication and resolving clinical disagreements**

<b>Sources of Potential Conflict</b>	<b>Approach – May Need to have:</b>
Differing expectations for information needs, communication content and style	<ul style="list-style-type: none"> <li>• Team Training</li> <li>• Structured communication tools (e.g., SBAR-R-R structured handoffs)<sup>a</sup>;</li> <li>• Board rounds</li> <li>• Huddles</li> <li>• Attentive listening</li> </ul>
Failure to communicate rationale Inattention to concern  Concerns remain unresolved	<ul style="list-style-type: none"> <li>• Routinely ask for plan and reasoning</li> <li>• Persistently restate concerns until resolved</li> <li>• Develop clear lines for problem resolution that can be activated quickly with high risk patients: e.g. laborist in house; MFM consultation available 24 hours a day; back-up list for who to call including anesthesiologists, MFM, intensivists, and administrators</li> <li>• Ratify plan before concluding conversation</li> </ul>
Differing “world views,” e.g., use of magnesium in women with preeclampsia without severe features (mild); meaning of signs and symptoms such as nausea, lethargy, or headache; interpretation, and management of complex tracings	<ul style="list-style-type: none"> <li>• Standardize protocol for magnesium sulfate, including criteria for administration</li> <li>• Standardize ongoing clinical assessments and notification parameters for signs of potential disease progression or magnesium toxicity</li> <li>• Standardize fetal monitoring language and application</li> <li>• Provide regular interprofessional case reviews to discuss management; role model expression of concern and positive resolution of differences</li> <li>• Standardize expectations for notification of complications</li> <li>• Articulate and plan for potential problems early in care</li> <li>• Individuals take responsibility for collaboratively discussing differing views</li> <li>• Avoid professional stereotyping as an explanation for behavior</li> </ul>
Disruptive behavior	<ul style="list-style-type: none"> <li>• “Good Citizen” policy consistently enforced</li> <li>• Individuals and peers stand up to unprofessional behaviors</li> <li>• Administrative commitment to addressing any chronic issues</li> <li>• Availability of anonymous incident reporting system</li> </ul>

Adapted from Lyndon, Zlatnik & Wachter Effective physician-nurse communication: a patient safety essential for labor and delivery. *Am J Obstet Gynecol.* 2011; Aug;205(2):91-6.

<sup>a</sup>SBAR-R-R = Situation, Background, Assessment, Recommendation, Reasoning, Ratification

### SBAR-R-R Communication Technique

A specific strategy for structured communication that many health care providers are familiar with is “SBAR.” This format, developed by Kaiser Permanente, was adapted from military and aviation crew resource management practices. It is recommended and taught in most healthcare teamwork improvement programs. The SBAR format, which stands for Situation-Background-Assessment-Recommendation, provides a brief, organized, predictable flow of information that facilitates critical thinking and communication skills between healthcare providers, and may be especially helpful in leveling communication styles between disciplines. However SBAR alone does not explicitly incorporate essential teamwork principles of assertive communication of concern and closed loop communication. These two principles can be built into SBAR with a simple expansion to SBAR-R-R (Table 3), which includes the steps “Reasoning,” to ensure team members understand each other’s interpretation of the present situation if immediate agreement is not reached, and “Ratification,” to ensure the team members have an agreed upon plan for moving forward.

Table 3: SBAR-R-R Communication Technique Applied to Preeclampsia

<p><b>Prepare for an SBAR-R-R by:</b></p> <ol style="list-style-type: none"> <li>1. Assessing the patient</li> <li>2. Reviewing recent notes and laboratory results</li> <li>3. Having the medical record available during the conversation</li> </ol> <p><b>Situation:</b> Always identify yourself, where you are calling from, the name of the woman you are calling about, quickly state the main reason and the <u>level of urgency</u> for the call.</p> <p><b>Background:</b> Give brief pertinent background information – medical history, complaints, vital signs, and interventions that have already occurred</p> <p><b>Assessment:</b> Say what you think is going on</p> <p><b>Recommendation:</b> Say what you think should happen or ask for specific orders</p> <p><b>Reasoning:</b> If the response is not what you expect and requested, state <i>why</i> what you think should happen is important. What could happen if we don’t do this?</p> <p><b>Ratification:</b> Close the loop by confirming actions to be taken. Assure mutual agreement on the plan.</p>
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Table 4: Sample SBAR-R-R Scenarios

	<b>Ambulatory Care or Emergency Department</b>	<b>Inpatient Antepartum or Intrapartum</b>	<b>Postpartum</b>
<b>Situation</b>	<p>I am calling about Ms. ____, who</p> <ul style="list-style-type: none"> <li>□ is pregnant</li> <li>□ recently had a baby</li> </ul> <p>and is here in the ED with stomach pain. I am concerned about</p> <ul style="list-style-type: none"> <li>• High blood pressure</li> <li>• Headache</li> <li>• Visual disturbances</li> <li>• Decreased fetal movement</li> <li>• Nausea and vomiting</li> </ul>	<p>I am calling about Ms. ____, who is an antepartum patient being monitored for preeclampsia. I am concerned about:</p> <ul style="list-style-type: none"> <li>• New onset headache</li> <li>• Increasing blood pressures</li> <li>• Headache that has not resolved</li> <li>• Visual disturbances</li> <li>• Stomach pain</li> <li>• Abnormal or indeterminate fetal status</li> <li>• Altered/worsening lab values</li> </ul>	<p>I'm calling about Ms. ____ who had her second baby yesterday at 3 pm. I am concerned about:</p> <ul style="list-style-type: none"> <li>• New onset headache</li> <li>• Increasing blood pressures</li> <li>• Headache that has not resolved</li> <li>• Visual disturbances</li> <li>• Stomach pain</li> <li>• Altered/worsening lab values</li> </ul>
<b>Background</b>	<ul style="list-style-type: none"> <li>• GPTAL @__weeks or G_P_ #days post birth</li> <li>• Significant OB and medical history</li> <li>• Current problems</li> <li>• Patient complaints</li> <li>• Vital Signs</li> <li>• Interventions and response</li> </ul>	<ul style="list-style-type: none"> <li>• GPTAL @__weeks</li> <li>• Significant OB and medical history</li> <li>• Current problems</li> <li>• Patient complaints</li> <li>• Vital Signs</li> <li>• FHR tracing baseline, variability, accelerations, decelerations</li> <li>• Uterine activity</li> <li>• Interventions already completed</li> </ul>	<ul style="list-style-type: none"> <li>• G_P__</li> <li>• Mode of birth (vaginal/cesarean)</li> <li>• Significant OB and medical history</li> <li>• Current problems</li> <li>• Patient complaints</li> <li>• Vital Signs</li> <li>• Interventions already completed</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• I'm thinking she may have preeclampsia and need an OB evaluation before we can clear her.</li> <li>• I'm concerned she may have severe preeclampsia and needs medication to control her blood</li> </ul>	<ul style="list-style-type: none"> <li>• Her preeclampsia seems to be progressing and her blood pressures indicate severe hypertension and severe preeclampsia.</li> <li>• The FHR tracing is indeterminate and the</li> </ul>	<ul style="list-style-type: none"> <li>• I'm thinking that her increasing BPs and new onset headache may represent preeclampsia and that she would benefit from an initial preeclampsia workup.</li> </ul>

	pressure now.	decelerations do not resolve with position change.	
<b>Recommendation</b>	<ul style="list-style-type: none"> <li>• Could you please come and evaluate her within ___?               <ul style="list-style-type: none"> <li>○ Now</li> <li>○ Within 30 min</li> <li>○ Before ___, etc.</li> </ul> </li> <li>• Could I have orders for: ___               <ul style="list-style-type: none"> <li>○ CBC, liver function, kidney function</li> <li>○ Antihypertensive</li> </ul> </li> <li>• Magnesium sulfate</li> </ul>	<ul style="list-style-type: none"> <li>• I need you to come and evaluate her now.</li> <li>• May I please have an order for antihypertensive medication?</li> <li>• Are there any labs we need to repeat?</li> <li>• When can I expect you?</li> </ul>	<ul style="list-style-type: none"> <li>• May I have an order for a preeclampsia lab panel?</li> <li>• When can I expect you in to evaluate Ms. ___?</li> </ul>
<b>Reasoning</b>	<ul style="list-style-type: none"> <li>• I don't think it is safe to send her home without evaluating the possibility of preeclampsia</li> <li>• If we don't lower her blood pressure to a safer range she could have a stroke</li> </ul>	<ul style="list-style-type: none"> <li>• It is really important to control her blood pressure while we make preparations to proceed to birth.</li> <li>• If we don't lower her blood pressure to a safer range she could have a stroke.</li> </ul>	<ul style="list-style-type: none"> <li>• It's important for us to get baseline data before considering discharge in the morning.</li> </ul>
<b>Ratification</b>	<ul style="list-style-type: none"> <li>• Ok, I'll do ___, and You'll evaluate her in ___ or call ___ for ___.</li> </ul>	<ul style="list-style-type: none"> <li>• Ok, I'll do ___, and you'll be here to evaluate her in ___.</li> </ul>	<ul style="list-style-type: none"> <li>• OK, I'll do ___ and you'll be in to evaluate her in ___.</li> </ul>

Adapted from Kaiser Permanente SBAR Guidelines and SBAR Report to Physician about a Critical Situation, and Ascension Health Perinatal SBAR Report Template.

## Example Strategy for Building Collaborative Culture and Problem Solving Skills

### *Nurse-Led Multidisciplinary Obstetric Patient Summaries (MOPS)*

Every patient is discussed by the multidisciplinary team each shift. This might occur at board rounds with the entire L&D team, or might be a two-person process involving the attending physician or midwife and bedside RN, with additional consultation from anesthesia, MFM, charge nurse, or others as needed for patient complexity. The exact make-up and logistics for each team are dependent on local conditions.

All care providers are encouraged to consider elements of concern or potential risks by pondering questions such as:

- What potential risks exist for this patient? (Is there risk of stroke, eclampsia, hemorrhage, fetal injury?)
- Are there trends that indicate concern? (e.g., vital signs, fetal trends, lab trends, headache, malaise, nausea, abdominal pain, scotomata)
- Is there any information or task that I don't understand or know how to perform?
- What is the plan of care based on the given information?
- Do I feel uncomfortable or I am concerned about the plan of care?
- Do I feel qualified or do I feel inexperienced in caring for a patient like this?
- Are there concerns I would like to have addressed?

#### EVIDENCE GRADING:

Level of Evidence: II-3, III

#### REFERENCES

1. Quality Patient Care in Labor and Delivery: A Call to Action. *J Midwifery Women's Health*. 2012;57(2):112-113.
2. The Joint Commission. Preventing infant death and injury during delivery. Sentinel Event Alert. 2004;Jul 21(30):1-3.
3. The Joint Commission. Sentinel Event Data Root Causes by Event Type 2004-2012. 2012;  
[http://www.jointcommission.org/assets/1/18/Root\\_Causes\\_Event\\_Type\\_2004\\_2Q2012.pdf](http://www.jointcommission.org/assets/1/18/Root_Causes_Event_Type_2004_2Q2012.pdf).
4. Pettker CM, Thung SF, Norwitz ER, et al. Impact of a comprehensive patient safety strategy on obstetric adverse events. *Am J Obstet Gynecol*. Feb 26 2009.
5. Pettker C, Thung S, Raab C, et al. A comprehensive obstetrics patient safety program improves safety climate and culture. *Am J Obstet Gynecol*. 2011;204(3216.e1-e6).
6. Simpson K, Knox G, Martin M, et al. Michigan Health & Hospital Association Keystone Obstetrics: a statewide collaborative for perinatal patient safety in Michigan. *Joint Commission Resources*. 2011;Dec;37(12):544-552.
7. Miller M, Niedner M, Huskins W, et al. Reducing PICU central line-associated bloodstream infections: 3-year results. *Pediatrics*. 2011;Nov(128(5)):e1077-1083.
8. Lin D, Weeks K, Bauer L, et al. Eradicating central line-associated bloodstream infections statewide: the Hawaii experience. *Am J Med Qual*. 2012;27(2):124-129.
9. Dreifus C. A Conversation with Dr. Peter J. Pronovost: Doctor Leads Quest for Safer Ways to Care for Patients. *New York Times* 2010: Sec D2.
10. Neily J, Mills P, Young-Xu Y, et al. Association between implementation of a medical team training program and surgical mortality. *JAMA*. 2010;Oct 20(304(15)):1693-1700.
11. Blatt R, Christianson M, Sutcliff K, et al. A sensemaking lens on reliability. *Journal of Organizational Behavior*. 2006;27:897-917.
12. Lyndon A. Social and environmental conditions creating fluctuating agency for safety in two urban academic birth centers. *J Obstet Gynecol Neonatal Nurs*. 2008;Jan-Feb(37(1)):13-23.

13. Smetzer J, Cohen M. Intimidation: practitioners speak up about this unresolved problem. *Joint Commission Journal on Quality and Patient Safety. Journal on Quality and Patient Safety.* 2005;31:594-599.
14. Lyndon A, Sexton JB, Simpson KR, Rosenstein A, Lee KA, Wachter RM. Predictors of likelihood of speaking up about safety concerns in labour and delivery. *BMJ Qual Saf.* Jul 1 2011.
15. Gardezi F, Lorelei L, Sherry E, et al. Silence, power and communication in the operating room. *J Adv Nurs.* 2009;65(7):1390-1399.
16. Entwistle V, Mello M, Brennan T. Advising patients about patient safety: current initiatives risk shifting responsibility. *Jt Comm J Qual Patient Saf.* 2005;Sep(31(9)):483-494.
17. Teamwork and Communication Working Group. Improving patient safety with effective teamwork and communication: Literature review needs assessment, evaluation of training tools and expert consultations. 2011; <http://www.patientsafetyinstitute.ca/English/toolsResources/teamworkCommunication/Documents/Canadian Framework for Teamwork and Communications.pdf>.
18. Schwappach D. Review: Engaging Patients as Vigilant Partners in Safety. *Med Care Res Rev.* 2010;67(2)(April 1):119-148.
19. *The California Pregnancy-Associated Mortality Review. Report from 2002 and 2003 Maternal Death Reviews: California Department of Public Health, Maternal Child and Adolescent Health Division.* Sacramento 2011.
20. Leonard M, Graham S, Bonacum D. The human factor: the critical importance of effective teamwork and communication in providing safe care. *Qual Saf Health Care.* 2004;Nov(13):Sup 1:885-890.
21. Knox G, Simpson K. Perinatal high reliability. *Am J Obstet Gynecol.* 2011;May(204(5)):373-377L.
22. Lyndon A, Zlatnik MG, Wachter RM. Effective physician-nurse communication: a patient safety essential for labor and delivery. *American Journal of Obstetrics and Gynecology.* Aug 2011;205(2):91-96.
23. AHRQ. TeamSTEPPS®: Strategies and Tools to Enhance Performance and Patient Safety. 2012; <http://teamstepps.ahrq.gov/abouttoolsmaterials.htm>.
24. American Nurses Association. Code of Ethics for Nurses with Interpretive Statements. *American Nurses Association 2001.*

Note: #17: Canadian Framework for Teamwork link may need to be copied and pasted into a web browser in order to work properly.