



# Strategies for Improving Interdisciplinary Collaboration Between OB/GYN, Critical Care, and Nursing Staff to Manage Complex Patients

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## Abstract

Managing complex obstetric patients requires seamless coordination among obstetricians/gynecologists (OB/GYN), critical care physicians, and nursing staff. Conditions such as hypertensive disorders, sepsis, cardiac disease, postpartum hemorrhage, and high-risk pregnancies demand rapid decision-making and specialized expertise from all disciplines. Interdisciplinary collaboration enhances patient safety, reduces maternal morbidity and mortality, and improves communication across units. This article explores evidence-based strategies to foster effective interdisciplinary teamwork in maternal critical care, examining communication frameworks, structured protocols, training programs, simulation-based learning, and leadership engagement. Challenges such as hierarchical barriers, role ambiguity, and fragmented information flow are discussed alongside solutions for building a collaborative culture. Recommendations for optimizing team performance and improving outcomes in complex obstetric care are presented.

**Keywords:** Interdisciplinary collaboration, obstetric critical care, maternal health, OB/GYN, nursing, teamwork, patient safety

## 1. Introduction

Maternal health continues to be a significant global concern, especially with rising incidences of complications such as hypertensive disorders, sepsis, and cardiac emergencies during pregnancy. Complex obstetric patients require multidisciplinary expertise from OB/GYN, anesthesiology, critical care, emergency medicine, and nursing staff. The transition between labor units, operating rooms, and intensive care units (ICUs) demands well-coordinated communication, shared decision-making, and mutual trust among healthcare providers.

Despite the recognized need for interdisciplinary collaboration, barriers such as professional silos, varied clinical perspectives, and inconsistent communication persist. Implementing structured strategies that strengthen collaboration is crucial to improving maternal outcomes and reducing preventable complications.

## 2. Importance of Interdisciplinary Collaboration in Managing Complex Obstetric Patients

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### 1. Enhancing Clinical Decision-Making

Complex maternal conditions often require rapid interpretation of clinical data and multidisciplinary consultation. Collaborative care allows providers to integrate expertise, resulting in more comprehensive assessment and timely interventions.

### 2. Improving Patient Safety

Interdisciplinary teams reduce adverse events by promoting shared responsibility, early warning recognition, and harmonized clinical pathways.

### 3. Streamlining Care Transitions

Smooth transitions between labor wards, operating theaters, and ICUs reduce delays in treatment, duplication of monitoring, and communication breakdowns.

#### 4. Supporting High-Risk Maternal Care

Patients with cardiac disease, severe preeclampsia, respiratory failure, or hemorrhage benefit significantly from a coordinated approach involving both obstetric and critical care teams.

#### 5. Promoting Staff Satisfaction

Interprofessional collaboration reduces moral distress and fosters a supportive work environment.

### 3. Challenges to Effective Collaboration

#### 1. Hierarchical Culture

Traditional medical hierarchies can limit open communication and discourage nurses or junior staff from voicing concerns.

#### 2. Role Ambiguity

Differences in training and responsibilities may cause uncertainty about who leads decision-making in emergency situations.

#### 3. Inconsistent Communication Methods

Variability in documentation, handoff styles, and reporting structures often leads to misinformation or oversight.

#### 4. Fragmented Care Environment

Geographic separation of units such as labor wards and ICUs complicates coordination.

#### 5. Differences in Clinical Priorities

OB/GYN specialists may focus on fetal outcomes, whereas critical care teams emphasize maternal stabilization.

Identifying these barriers is essential for designing structured interventions.

### 4. Strategies for Strengthening Interdisciplinary Collaboration

#### 1. Implementing Standardized Communication Frameworks

Tools such as SBAR (Situation–Background–Assessment–Recommendation), I-PASS, and structured handoff checklists improve clarity and consistency.

##### Key benefits:

- Reduces miscommunication during emergencies
- Helps nurses communicate concerns to physicians with confidence
- Supports efficient transfer of critical information

#### 2. Developing Multidisciplinary Clinical Protocols

Jointly created guidelines ensure consistent, evidence-based care. Essential protocols include:

- Management of postpartum hemorrhage (PPH)
- Hypertensive disorder pathway
- Obstetric sepsis management
- Maternal early warning systems (MEWS)
- Transfer to ICU criteria

These protocols serve as a shared roadmap across all teams.

#### 3. Establishing Regular Interdisciplinary Rounds

Daily or twice-daily collaborative rounds enhance shared decision-making and improve situational awareness. These should include:

- OB/GYN consultants
- Critical care specialists
- Nursing charge staff
- Anesthesiologists (when relevant)
- Pharmacists

Rounding reduces treatment delays and aligns team goals.

#### 4. Simulation-Based Team Training

High-fidelity and scenario-based simulations replicate real obstetric emergencies such as:

- Eclampsia
- Amniotic fluid embolism
- Cardiac arrest in pregnancy
- Massive obstetric hemorrhage
- Respiratory distress

Simulation training improves communication patterns, leadership skills, crisis resource management, and interdisciplinary trust.

### 5. Creating Obstetric Rapid Response Teams (ORRT)

A structured emergency response team consisting of OB/GYN, critical care, anesthesia, and nursing staff enables:

- Rapid mobilization
- Consistent emergency response
- Reduced maternal codes and complications

### 6. Utilizing Shared Electronic Health Records (EHRs)

Integrated documentation systems support:

- Real-time access to patient updates
- Reduced duplication
- Coordinated care planning

### 7. Leadership Support and Organizational Culture Change

Leadership involvement is essential to sustain collaboration initiatives. Effective strategies include:

- Joint training budgets
- Interdepartmental quality improvement meetings
- Non-punitive culture encouraging staff to speak up
- Recognition of collaborative achievements

### 8. Establishing Multidisciplinary Maternal Morbidity & Mortality Reviews

Joint analysis of critical incidents identifies system gaps and strengthens protocols across departments.

### 9. Enhancing Continuous Professional Development

Workshops, cross-training, and interdisciplinary seminars help staff understand each other's roles and build mutual respect.

## 5. Impact of Improved Collaboration on Patient Outcomes

Research demonstrates that hospitals implementing structured interdisciplinary strategies show:

- Reduction in maternal morbidity and mortality
- Shorter ICU stays
- Reduced time to intervention (e.g., in PPH or eclamptic seizures)
- Enhanced provider satisfaction and team cohesion
- Fewer communication-related adverse events

Collaborative practice is thus essential to achieve safe, patient-centered maternal care.

## 6. Conclusion

Effective interdisciplinary collaboration among OB/GYN, critical care teams, and nursing staff is vital for managing complex obstetric patients. Strategies such as standardized communication tools, joint clinical protocols, simulation training, interdisciplinary rounds, rapid response teams, and leadership engagement significantly enhance team coordination and patient outcomes. With rising maternal morbidity worldwide, strengthening collaboration is not only beneficial but essential for ensuring high-quality maternal and neonatal care. Continued efforts to break down professional silos and foster teamwork will lead to safer, more efficient, and more compassionate care for complex obstetric patients.

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