



## REVIEW ARTICLE

## Safe Patient Hand-Off Strategies in Obstetric Units

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### Abstract

**Background:** Most sentinel events reported to the Joint Commission are directly linked to miscommunication between healthcare workers, and hand-offs present an opportunity for errors. This paper aims to describe recommendations regarding safe patient hand-offs in labor and delivery and postpartum units.

**Methods:** Literature search performed using CINAHL and PubMed. Three articles were selected from over 500 peer-reviewed articles and academic journals published between 2011-2017 that focused on patient hand-offs, nursing, labor and delivery and postpartum care.

**Results:** All three studies identified clear, well-directed communication as crucial for preventing sentinel events. Bedside hand-offs were preferred related to the opportunity for patient involvement in healthcare decisions. Unit-specific hand-offs were recommended as a major pathway for standardization of the hand-off process.

**Conclusion:** Effective communication within the healthcare team is vital to providing high-quality patient care. More education and standardization of hand-off should be encouraged. Adequate documentation and situational awareness are non-negotiable for patient safety in obstetric units. Further research on hand-offs in labor and delivery units is warranted.

change in healthcare providers and breaks. The purpose of this paper is to describe current recommendations regarding safe patient hand-off strategies in obstetric units.

### Methodology

A literature search was performed using the electronic database CINAHL for academic journals published between 2011-2017. Terms of search included "patient hand-off", "labor and delivery" and "patient handover". Three hundred thirty-one journals resulted from this search, and one was chosen. A second search was done using PubMed with search terms "patient care", "handover" and "nursing" yielding two hundred and forty-five articles published between 2011-2017, of which one was selected. Another PubMed search was performed with search terms "maternity", "patient care" and "handover" producing 16 results from 2011-2017, of which one was chosen. Selected articles focused on hand-off strategies in obstetric units and were published in peer-reviewed or academic journals.

### Background

This paper will address the labor-delivery and postpartum units, which specialize in caring for childbearing women and babies during the intrapartum and postpartum periods, respectively. Intrapartum refers to the period from the onset of labor until delivery. Postpartum refers to the period after birth [2].

The setting for intrapartum care is the labor and delivery unit. This unit provides private rooms for patients and their families during the labor and delivery process. Rooms may contain equipment such as fetal

### Safe Patient Hand-Off Strategies in Labor and Delivery and Postpartum Units

Patient hand-offs refer to the transfer and acceptance of patient care responsibility and effective communication of pertinent information between healthcare providers. Patient hand-offs are essential to providing safe and high-quality care because they ensure continuity of care, prevent sentinel events and establish a culture of safety in healthcare settings [1]. Hand-off can occur at shift change, transfer between units,



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heart rate monitors, newborn warming units, vital signs monitors, and medication poles [2]. Some healthcare providers involved in the intrapartum woman's care include anesthesiologists, midwives, obstetricians, labor and delivery nurses and surgical staff. Effective communication between these providers will be essential to maintain high quality of care. Patients may receive intravenous medications or epidurals, so there is potential for medication error. Although some patients in this population are of lower acuity, frequent monitoring and care of mother and baby are required, so a lot of documentation is required. This increases the risk for miscommunication during breaks, shift change or between units.

Patient transfer from labor-delivery to the postpartum unit is a major point for potential miscommunication. A standardized hand-off tool with pertinent information to postpartum is necessary to prevent adverse events such as incision site infections, shock and hemorrhage. Postpartum units contain private rooms where the mother recuperates before she is discharged. Different healthcare providers may be involved in care, and discharge teaching on expectations after birth and symptoms of complications is given on this unit. Some postpartum units utilize couplet care where the newborn is kept with the mother as often as possible. Effective communication between the newborn nurse and postpartum nurse is essential to promote mother-baby bonding and enhance quality of care for the dyad [2]. The postpartum nurse cares for 3-5 patients, so medication administration and assessments are more, and there is a risk of mixing up patients and subsequently relaying incorrect information to other healthcare providers.

Although patient hand-offs allow healthcare professionals to collaborate to ensure patient safety, it can become a point for serious errors to be committed. The majority of sentinel events (including maternal morbidity and mortality) reported to The Joint Commission can be traced back to miscommunication between healthcare providers, which can easily occur at patient hand-offs [1]. A study of malpractice cases showed that 34% of obstetric cases were linked to miscommunication [3]. The risk for morbidity and mortality in the obstetric population is high, so effective transition of care is required. Effective communication between healthcare providers is essential for preventing avoidable adverse effects and maintaining high quality of care and safety of patients.

## Recommendations from the Literature

This section will provide a brief overview of three research articles that address patient hand-off strategies in obstetric units. The perception of nurses and patients about bedside hand-off, implementation of unit specific hand-off methods and measurements of its effect is investigated in these articles.

## Postpartum modified hand-off

Wollenhaup, Stevenson, Thompson, Gordon and Nunn [4] implemented a quality improvement project (QIP) on a 13-bed postpartum unit in a rural hospital in Georgia. Quantitative data collection and satisfaction questionnaires were used in the QIP. The sample was a convenience sample of 50 patients and 28 nurses. They aimed to successfully implement an updated bedside hand-off structure tailored to the postpartum unit.

This structure included parts of the Situation, Background, Assessment and Recommendation (SBAR) report, review of electronic health records and development of goals. The Situation and Background portions were discussed outside patients' rooms, while the rest of the report occurred at the bedside. Nursing staff was educated, and champions were trained to provide support during the implementation of the new structure. Target outcomes of this project were to increase compliance to the new structure to 95% and increase patient and nurses' satisfaction with bedside report by 20% and 10% respectively, all within 2 months post implementation.

The results of the study by Wollenhaup, et al. [4] showed an increase from 26% to 84% compliance in the use of the updated hand-off structure. Patient satisfaction increased by 28.01%, and nurses increased by 40.3%. The modified hand-off allowed private information to be discussed outside the room, but still provided an avenue for the patient to be actively involved in hand-off at the bedside.

## Nurses' views of bedside hand-off

Kerr, Lu and McKinlay [5] used a qualitative descriptive method to explore the perspectives of nurses and midwives toward bedside hand-off (BHO) in maternity, medical and surgical units in an Australian hospital. Semi-structured interviews were conducted with a purposive sample of 20 medical-surgical nurses and 10 midwives one year after the implementation of BHO. Interview questions were open-ended about the risks, benefits and limitations of BHO; interview sessions were taped and 30 minutes long.

The study by Kerr, et al. [5] revealed 2 themes: Improved care and documentation and patient privacy and confidentiality concerns. Participants in the study stated that BHO enabled them to be more prepared for patient care, ensured continuity of care, reduced length of report at shift change and included patients in their care. Midwives specifically reported concerns about privacy and confidentiality of patient information with BHO, related to the high visitor volume on the unit. The development of unit-specific tools and relevant educational resources will aid the incorporation of BHO into standard clinical practice.

## Patients' views of hand-off

Chin, Warren, Kornman and Cameron [6] used semi-structured qualitative interviews and quantitative medical record analysis to explore patients' perception of handover in the maternity department and factors that influence quality and safety of hand-offs. 30 English-speaking postpartum patients who delivered at a tertiary Australian hospital were interviewed before discharge. Interviews were not recorded, notes were taken. Interview questions assessed patients' knowledge, viewpoints and suggestions for improvement of hand-off.

The study by Chin, et al. [6] revealed that about half of the participants had some knowledge of handovers; one-third reported handovers as satisfactory and another third did not want to be included in handovers. Patients considered hand-off effective if healthcare providers had: situation awareness, cohesion within the healthcare team and physical reminders of patient information such as prenatal records. Patients stated that quality and safety was improved with patient-authored birth plans, collective crosschecking of information and positive patient involvement in care. This study proposes benefit of further research of patients and supports people's participation in handovers.

## Literature Summary

All three studies address the quality and safety of patient care and hand-off related to the maternity units. They all identify effective communication as the key to preventing sentinel events. All the studies involve the use of qualitative research methods in data collection. Results of all the studies relate a preference for bedside hand-offs and the need for increased patient involvement in care. They all state the importance of unit specific hand-off strategies.

The Wollenhau, et al. [4] study was an intervention-based project, while the other two were exploratory; more focused on revealing subjective considerations of participants. The Wollenhau, et al. study was done in the United States, while the other 2 were done in Australia. The study by Chin, et al. [6] focused on patients' viewpoints of quality and safety in hand-offs, while the Kerr, et al. [5] study focused on nurses' viewpoints on bedside hand-offs. Chin, et al. and Kerr, et al. had a sample size of 30 patients, while Wollenhau, et al. had a sample size of 50 patients.

## Nursing Implications

Nurses are a vital part of patient hand-offs, so it is essential for them to be aware of the implications of poor patient hand-offs as well as the important steps for an effective hand-off.

Some quality and safety implications of poor patient hand-off include: increased healthcare cost, increased length of hospital stay, patient dissatisfaction with care,

provider burnout, injury and other sentinel events [3,5].

Nurses caring for patients in obstetric units will benefit from a standardized unit-specific hand-off structure. Kim, Lee and Kim [7] conducted a descriptive study including 425 nurses at small and medium sized hospitals in South Korea. Awareness of the existence of hand-offs and their effect on patient safety were evaluated. Results showed that most nurses who experienced errors in hand-offs had no structure for hand-offs at their hospitals. Establishing structures for hand-offs, including the use of the electrical medical record and a standardized checklist of criteria for discussion between nurses at crucial hand-off points, including relief breaks and shift changes, could alleviate hand-off errors [7].

A QIP done by Wollenhau, et al. [4] revealed that a hand-off structure that allowed private patient information to be discussed outside the patient's room before bedside report was most efficient in postpartum units. Obstetric units have high visitor volume, so modifying the hand-off structure to ensure patient privacy and confidentiality is vital. Bedside reports allow patients to be involved in their care, so incorporating this hand-off technique will be essential to improving quality and safety in obstetric units [4].

Educating nurses on the key steps to successful hand-offs is essential. Training should be done to orient nurses to the types and parts of hand-offs, pertinent information to include in hand-offs and possible barriers to prevent miscommunication between healthcare providers [4]. Instituting "champions" who serve as support for nurses while they adapt to new hand-off strategies proved to be helpful in the QIP done by Wollenhau, et al. [4]. Hand-offs should be adapted to unit-specific needs, and emphasis should be placed on maintaining a generalized order instead of personalizing hand-offs to allow for consistency across nurses and decrease reports of miscommunications and errors [8].

Care of obstetric patients may involve different healthcare departments, so obstetric nurses must document properly and maintain full awareness of patients' situations [5]. Proper documentation ensures patient information continuity and enhances patient care quality. When nurses familiarize themselves with the patient's information and care plan, they are better prepared to conduct a concise, informative and effective bedside report. Situational awareness helps the nurse identify potential problems and intervene appropriately [5].

## Conclusion

The purpose of this paper was to explore current strategies effective for safe patient hand-off in obstetric units. Effective communication between healthcare providers is essential for maintaining a high standard of care for obstetric patients. A review of the literature

addressed patients' and nurses' views of hand-offs and a modified hand-off implementation project in a postpartum unit. The recommendations from the literature include the need for unit-specific hand-off structure, increased education of nurses on hand-off protocols, implementation of bedside hand-offs, proper documentation, and continuous situational awareness of patients. Most of the research found for this topic was focused on postpartum units. Further research on hand-off in labor and delivery units is needed to gain insight into safe hand-off strategies specific to those units.

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