Obstetric Transport

Julie Scott, MD*

KEYWORDS

• Obstetric transport • Perinatal regionalization of care • SBAR communication
• EMTALA

KEY POINTS

- Obstetric transport is a specialized medical transport that can occur for maternal, fetal, and even neonatal concerns.
- Perinatal regionalization of care provides a broader geographic availability of obstetric services with defined levels of maternal and neonatal care so that women can be transported to centers with increased resources and capabilities to reduce morbidity and mortality.
- The Emergency Medical Treatment and Active Labor Act provides regulatory guidance for care of laboring women who require transfer to a higher level of care.
- The Situation, Background, Assessment, and Recommendation communication is a tool that can quickly identify key pieces of medical information with recommendations given for mutual expectations of next steps.

INTRODUCTION AND HISTORICAL BACKGROUND

The concept of medical transport to provide life-and-limb-saving services has made dramatic changes throughout history. Before the modern era, health care providers typically attended the ill and infirm at the site of injury or place of rest in their homes. On the battlefield, medical care and services had to be immediately available before exsanguination occurred from injuries sustained during military action. Beasts of burden provided the necessary horsepower with cots and carriages to transport the medically needy.

The first motorized ambulance was electric and began service in 1899. It was a gift from 5 prominent businessmen to the Michael Reese Hospital in Chicago as published in the *New York Herald*. It traveled at the maximum speed of 16 miles per hour. A speaking tube extended from the driver to the doctor for direct communication.[1]

Modern medical transportation with its rules and regulations for emergency medical services (EMS) and patient stabilization was a rather late addition to medical care not occurring until the 1960s. Advances in the medical sciences were presidential

Division of Maternal Fetal Medicine, Obstetrics & Gynecology, University of Colorado, Aurora, CO, USA
* MSB B198-5, 12631 East 17th Avenue, Room 4001, Aurora, CO 80045
E-mail address: Julie.scott@ucdenver.edu

Obstet Gynecol Clin N Am 43 (2016) 821–840
http://dx.doi.org/10.1016/j.ogc.2016.07.013 **obgyn.theclinics.com**

endeavors with the government supporting the development of regional medical programs (RMPs), which included the development of specialized units of care, such as coronary care units, neonatal intensive care units, burn units, and cancer centers. Funding for RMPs expanded EMS services, and patients with specific needs (ie, burn patients) were routed to the facilities that could provide those services (ie, burn units). Thus, getting from point A to point B became easier as there were designated sites of specialty care. However, the ability to provide care en route was still marginal as personnel lacked the appropriate medical training or even the ability to provide advanced first aid.[2]

Trauma related to motor vehicle accidents during the 1960s was also considered a major public health crises leading President Johnson to create the President's Commission on Highway Safety. Concurrently, the National Academy of Sciences, National Research Council published a report entitled "Accidental Death and Disability: The Neglected Disease of Modern Society," which was critical of the quality of emergency medical care in the United States. Specifics of the report highlighted a lack of protocols for treatment, poorly trained medical personnel, lack of transportation services, lack of adequate communications support, abdication of responsibilities of political authorities, and lack of research in prehospital care as major areas of concern. Recommendations were made and incorporated in to the Highway Safety Act of 1966.[2]

EMS services continued to lag behind as medical services were advancing despite federal support. Medical pioneers were advancing care in the cardiac sciences with intravenous (IV) medications, defibrillation, and cardiopulmonary resuscitation and knew that rapid implementation of care would decrease morbidities and mortality. Key political leaders also saw the importance of prehospital EMS services and reintroduced legislation leading to the EMS Services Development Act of 1973. This act designated the Department of Health, Education, and Welfare as the lead EMS agency within the federal government authorizing for the development of a comprehensive EMS system nationally with a data collection component to evaluate programs implemented.[2]

Transport of OB patients is not specifically discussed or addressed in these early legislative actions. OB patients were often managed in their local care setting unless there was a serious illness or medical comorbidity. With the development of neonatal intensive care units (NICUs) that could provide a higher level of care to babies born prematurely, at lower birth weights, and potentially with correctable structural abnormalities, the consideration of maternal transport for fetal indications became more important and continues to be a leading reason for transport. Maternal transport for purely maternal indications is also evolving as a common reason to provide OB transport so that OB patients receive care and consultation, which cannot be provided or unavailable at the referring hospital (**Box 1**).

LEVELS OF MATERNAL AND NEONATAL CARE

The landmark publication "Toward Improving the Outcome of Pregnancy: Recommendations for the Regional Development of Maternal and Perinatal Health Services" released by a committee on perinatal health consisting of the March of Dimes, American Congress of Obstetricians and Gynecologists, American Academy of Family Physicians, American Academy of Pediatrics, and the American Medical Association defined levels of specialty care in perinatal medicine in the United States.[3] Its framework categorized care based on local resources and hospital capabilities allowing for collaborative efforts of hospital systems to provide risk-appropriate care at different levels with the ideal being that a woman and her child would receive care at the