

Taking Transport to New Heights...

Jennifer Habert BHS, RRT-NPS, C-NPT
Critical Care Transport – Children's Mercy Kansas City

Learning Outcomes

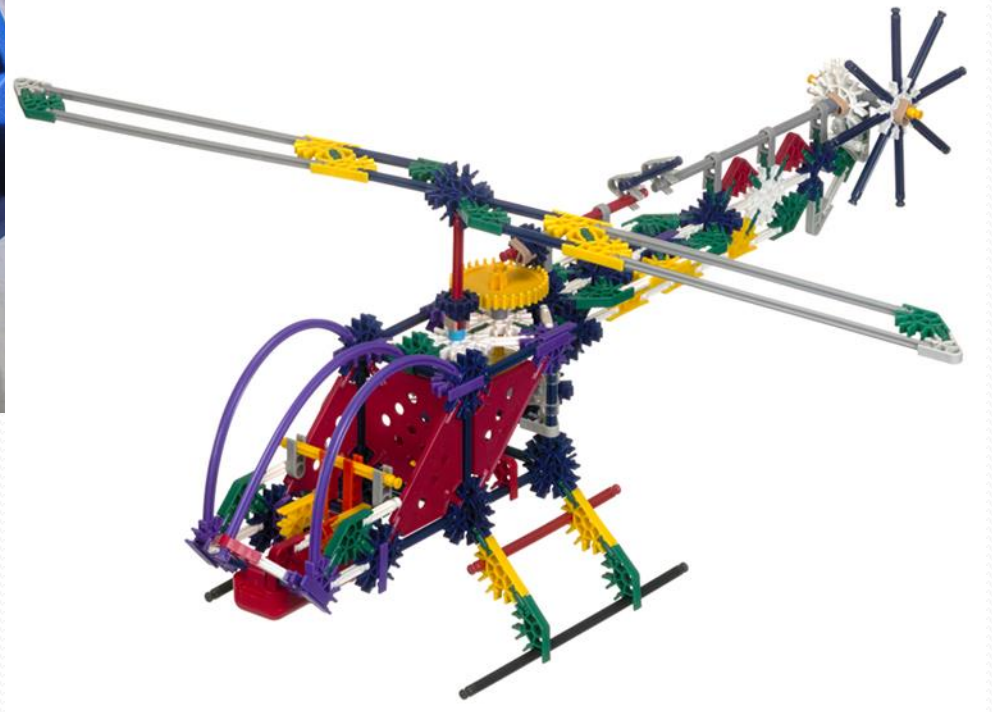
- Participants will identify important operational and safety measures in the transport environment.
- Learners will discuss changes in neonatal transport and improvements in care.

Building a Transport Team

- Operational/Safety
- Clinical



Building a Transport Team



Part 1 – Operations/Safety



Mission Statement

- “The goal of neonatal and pediatric interfacility transport is to bring specialty hospital quality of care to the bedside of patients who are not in proximity to a tertiary care facility and to ensure safe transfer to the hospital that will provide their definitive care. Transport services must ensure patient, family, and staff safety while incorporating, whenever possible, state-of-the-art practices and technology.”
 - Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients 4th Edition

Specialty Transport

- Provide high level of care
- Bring that level of care to outlying hospitals
- Ensure safe transfer of the patient to the accepting hospital (NICU, PICU, ER, inpatient unit)



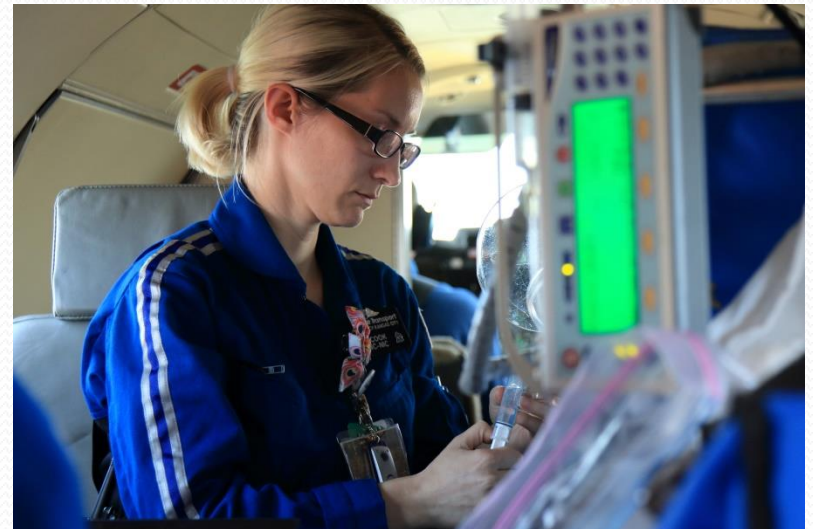
Specialty Transport

- Management needed by Neonatologist/Intensivist
- Diagnosis that will require additional resources
 - Exchange transfusion/Extensive phototherapy
 - Unstable blood glucose
 - CDH
 - CHD
 - RDS
 - MAS



Specialty Transport

- Specialty care needed
 - Intubation/Airway management
 - Needle Decompression
 - UAC/UVC placement
 - Nitric Oxide
 - High Frequency Ventilation
 - ECMO



Team Configuration

- Any combination of the following:
 - Nurse
 - Respiratory Therapist
 - Nurse Practitioner
 - Physician
 - EMT
 - Paramedic



Building a Strong Team

- Define your team
- Take ownership
- Share responsibilities
- Work together as a team
- Be supportive
- Monitor actions and decisions
- Work on being a good communicator
- Learn to speak up when there is a problem
- Learn how to manage conflict



Causes of Team Conflict

- Stereotypes
- Personality differences
- Value differences
- Differences in perspective
- Differences in goals
- Differences in experiences



Successful Teams

- Work on communication
- Replace defensiveness with openness
- Learn to be assertive not aggressive
- Don't rain on another's parade
- Focus on a SAFE transport and good patient care
- Show respect to each other
- Learn to pick your battles



Modes of Transport

- Ground
 - Less than 2 hour
(up to 4 in poor weather)
- Rotor Wing
 - Less than 150 miles
- Fixed Wing
 - Greater than 120 miles



Operations

- The process by which a transport is achieved.
 - Communication Center
 - Transport Team Members
 - Medical Control Physician
 - Mode of Transport Used
 - Referring Hospital
 - Receiving Hospital



Operations

- “The period when a critically ill or injured infant or child is traveling between institutions represents a particularly vulnerable time for the patient.”
- “All transitions of care must be seamless.”
 - Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients, 4th Edition

Operations/Safety

- Operations and safety are closely intertwined as the overall goal of every transport is to ensure the safety of the patient and the medical crew.
- The number 1 most important aspect of transport is **SAFETY!**

Safety is NOT just flight operations!!!

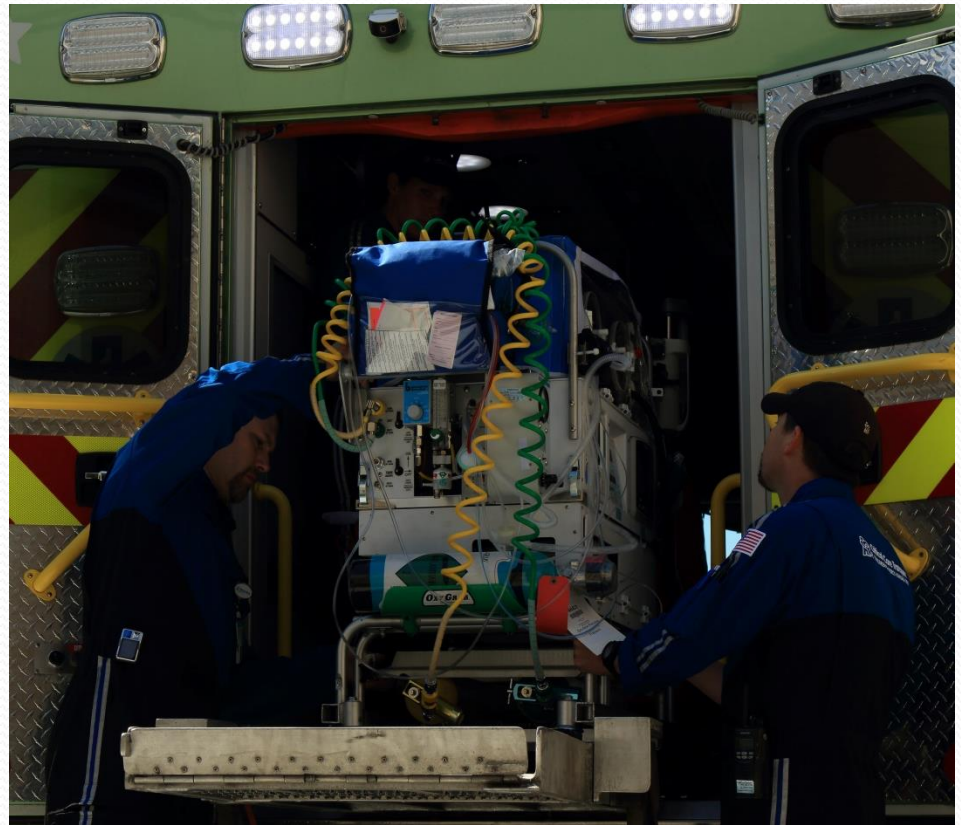
Last year we transported
5,318 patients

86% were ground transport

9% fixed wing transport

5% rotor wing transports

Whether or not you
transport a patient in an
aircraft, SAFETY must be the
#1 thing on your mind!



Safety

- Air Medical Resource Management (AMRM)
 - Assertiveness
 - Communication
 - Team Building
 - Situational Awareness



Safety

- Learn to maintain a safe environment
- Create a safety culture
- Subconscious vs. Conscious decisions
- Retrain your mind to not be compliant
- Use everything available to you (CRM)



Destination Zero

- Stand up
- Speak Out
- Take Action



ZERO is possible....

Training Days













Decisions, Decisions...

- When do you run “lights and sirens?”

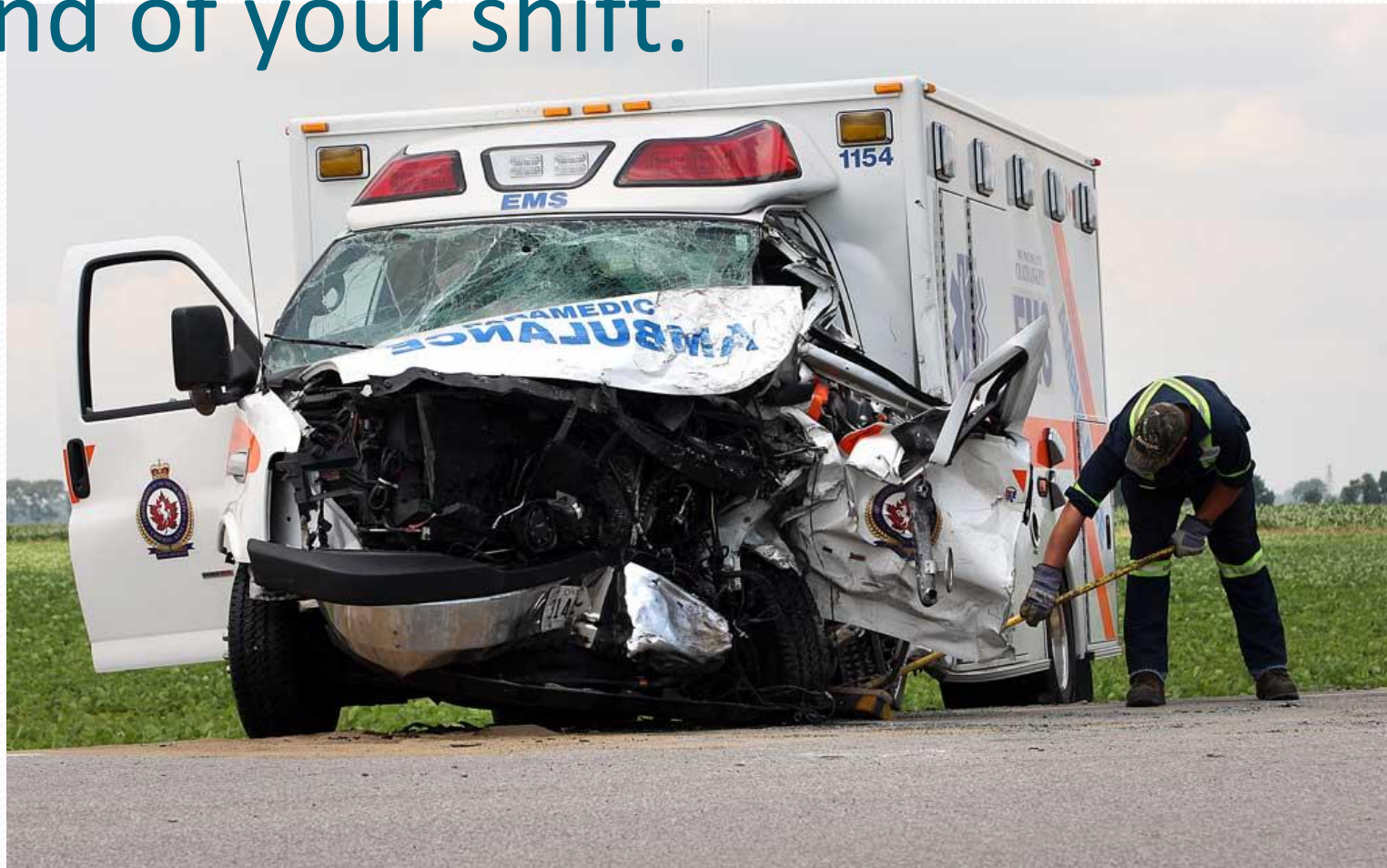




Safety Is...

Safety Is...

Going home to your family at the end of your shift.



Part 2 – Clinical Training



Clinical Training

- Research shows that the increased cost to educate transport staff members is a worthy investment.
- Many of the skills needed are high risk but low volume.
- Increasing trend to using clinical simulations to aid in training and maintaining proficiency of skills

Clinical Training

- Long Orientation
 - Geared toward persons experience and background
 - Cross-training for RN and RT
 - 3-6 months depending on experience
- Quarterly Skills
 - Intubation
 - UAC/UVC placement
 - Needle decompression
 - LMA placement
- Annual Skills
 - IO placement
 - Needle Cricothyrotomy

Clinical Simulations



Rotor Wing



Fixed Wing



Ambulance



Transport Team Requirements

- Advanced Cardiac Life Support (ACLS)
- Basic Life Support (BLS)
- Pediatric Advanced Life Support (PALS)
- Neonatal Resuscitation Program (NRP)
- Transport Professional Advanced Trauma Course (TPATC)

Additional Certifications

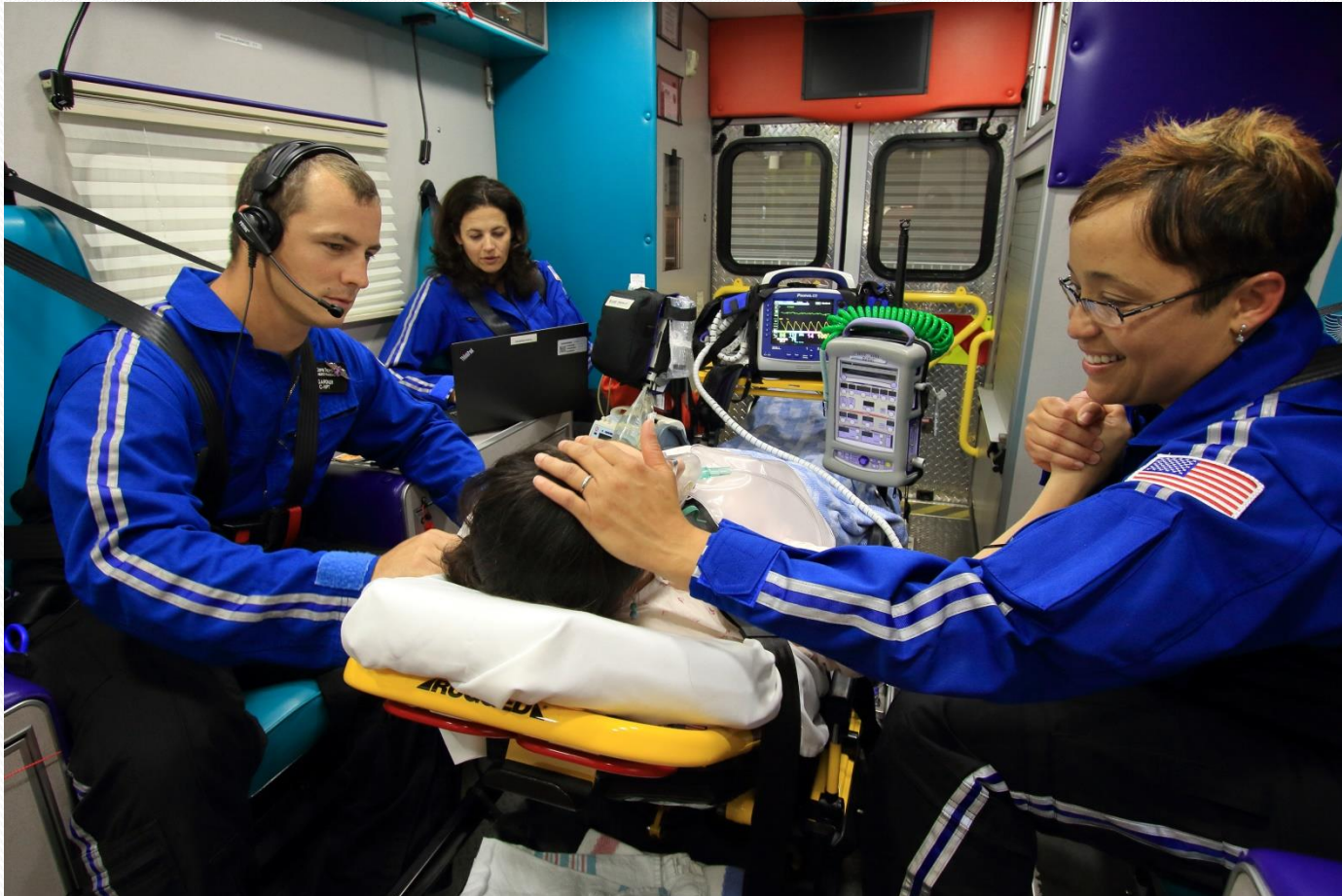
- Critical Care Registered Nurse (CCRN)
- Certification in Neonatal/Pediatric Transport (C-NPT)
- Neonatal/Pediatric Specialist Credential (NPS)
- Certified Flight Registered Nurse (CFRN)



It's a Changing World

- Trends that are seen in the NICU are making their way into transport
 - Neonatal Cooling
 - Use of high flow cannula
 - Push for Noninvasive Ventilation and CPAP vs intubation
 - Nitric on not only neonatal transports but also pediatric transports
 - Widespread use of HFV
 - Development of Fetal Health Center
 - Forward movement in developing maternal transport

Maternal Fetal Transport



Maternal Fetal Transport

- Mother MUST be stable
- Baby can have unstable diagnosis but must be stable at time of transport
 - ELBW
 - CDH
 - CHD
- If Mom or baby become unstable, delivery may need to take place in OUTLYING hospital.
- Can take place by any mode of transport.

Maternal Fetal Transport



How can we make transport seamless?

- 1. Arriving at patient bedside–
 - RN 1 – Quick eyes on patient, then report
 - RN 2 or RT – Quick assessment (Primary and Secondary Survey)
- 2. Other Considerations -
 - Landmarks of all tubes and lines
 - Meds/Fluids given
 - Meds/Fluids currently infusing
 - All Lab results
 - X-rays, ECHO results, etc....

How can we make transport seamless?

- Plan of care is based on:
 - Assessment
 - Test results (ABG, X-ray, Echo)
 - Response to therapy already in place
- Medical control physician notified/orders received
- Stay and stabilize vs. scoop and run

Don't forget

- The team should work together to quickly move through 1-3
 - 1. Assessment/Report
 - 2. Special Considerations
 - 3. Plan of Care
- The amount of time spent at the referral hospital is dependent on patient condition. Perform critical actions and then prepare to depart.

To do and not to do...

Do

- Keep pt in view at all times
- Assess and document vitals at least every 15 minutes
- Document patient temp every 30 minutes adjusting isolette as needed
- Make pt NPO and start or continue maintenance IVF
- Must have vascular access on any prolonged transport (> 2hr)
- Recognize when you must stay and stabilize

Don't

- Don't swaddle a pt on transport (can nest)
- Open side ports more than necessary
- Let your baby get hypo or hyperthermic
- FEED a baby on transport
- Scoop and run with an unstable patient
- Provide therapy that we wouldn't safely use in the NICU.

A peak at our world...



Never leave anything behind...



Loading and Unloading



Using local EMS...



A beautiful view...



More loading and unloading...



A great crew to work with...



... and they have a sense of humor



The end of a long day...





Our roof-top helipad



...which has its advantages!!!



Questions???

