“Transparency and Communication: The Gateway to Patient Safety”

Intra-facility Patient Transport: Risky Business

Cheryl Connors, MS, RN, NEA-BC
Dennis Jones, DNP, RN, CCNS
Objectives

• Explain why transport is risky
• Identify at least 2 strategies to improve safety during transport
• Utilize a checklist to assess safety before and during transport
What would staff say?

How will the next patient be harmed during transport?
Transport: risky business - Patient

- Vulnerability of patient with varying levels of acuity
- Multiple interactions among caregivers with varying skill sets: sender, transporter, receiver
- Variability in information communicated: hand-off/report
- Possible interruption of therapy (non-ICU patient)
- Ability to maintain same level of care
- Special patient populations, i.e. trach patients
Transport: risky business - Environment

• Campus geography:
  – location of ramps,
  – elevator size,
  – carpeted floors

• Emergency resources during transport:
  – AED’s
  – Code carts
  – Team access

• Destination unit:
  – Capability of care
Transport: risky business - Equipment

• Equipment: availability & familiarity
  – monitor, SpO2, EtCO2, suction, emergency supplies

• Mode of transport:
  – Wheelchair vs. stretcher vs. bed
  – Size of bed, wheelchair or stretcher
  – Bed capability
  – Driver’s license
  – Weight of bed and patient
  – Number of team members
  – Equipment transport
What would staff say?

How can we prevent the next patient from being harmed during transport?
Improvement strategies

• Formally Identify levels of transport based on patient condition and acuity
• Match the patients with appropriate personnel (not resource based, patient safety based)
• Transport teams – if none exist, i.e. for critical care patients, who transports patient?
• Create mechanisms to relay information across all team while patient is on their journey
### Improvement strategies - Transport Levels

**Algorithm to determine patient transport level**

<table>
<thead>
<tr>
<th>Personnel required for transport</th>
<th>Equipment required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport team (level 4 with vest)</td>
<td>ALL equipment listed below:</td>
</tr>
<tr>
<td>Authorized prescriber (MD/NP/PA)</td>
<td>- Transport monitor</td>
</tr>
<tr>
<td>RN who can maintain current level of care</td>
<td>- 2 oxygen tanks &gt; 1800 PSI</td>
</tr>
<tr>
<td>AND</td>
<td>- Airway management equipment</td>
</tr>
<tr>
<td>Respiratory therapist</td>
<td>- Resuscitation bag and mask</td>
</tr>
<tr>
<td></td>
<td>- IV pump, if indicated</td>
</tr>
<tr>
<td></td>
<td>- Medications (resuscitation and others per MD orders)</td>
</tr>
</tbody>
</table>

**PATIENT NEEDS TRANSPORT**

1. **START HERE**
   - Does patient have a high potential for instability in at least one of the following: Airway, Breathing, Circulation, or Neurological?
     - YES
     - NO
   - Is patient mechanically ventilated or require nasal/oral airway to maintain airway?
     - YES
     - NO
   - Is patient on Intracranial Pressure Monitoring?
     - YES
     - NO
   - Are vasopressor agents being actively titrated to maintain hemodynamic stability?
     - YES
     - NO
   - Is patient on a vasopressor agent not being actively administered?
     - YES
     - NO
   - Is patient any continuous infusion that if disconnected would result in adverse patient consequences?
     - YES
     - NO
   - Does the patient have a tracheostomy or laryngectomy?
     - YES
     - NO
   - Does patient need airway secretion management?
     - YES
     - NO
   - Is patient on O₂ > 5 L/min?
     - YES
     - NO
   - Is patient on suction precautions or restrained (4 pt)?
     - YES
     - NO
   - Is patient on O₂ < 5 L/min?
     - YES
     - NO
   - Has patient had no change in baseline in 24 hrs?
     - YES
     - NO
   - Is patient PBF vital, Q/R assessments or less?
     - YES
     - NO

**LEVEL 4 PATIENT**

1. Transport team (level 4 with vest)
2. Authorized prescriber (MD/NP/PA)
3. RN who can maintain current level of care
4. Respiratory therapist

**LEVEL 3 PATIENT**

1. LifeLine team
2. RN who can maintain current level of care
3. Tech who can maintain current level of care

**LEVEL 2 PATIENT**

1. LifeLine team
2. RN who can maintain current level of care
3. Unlicensed assistive personnel

**LEVEL 1 AND PATIENT**

1. Unlicensed assistive personnel
2. Transporter(s) (level 2)
3. Transporter

**Additional as needed**

- Escort, security or other support as dictated by medical, behavioral and others patient care needs.
Transport Teams

- Standard Patient Escort
- Organized Critical Care Transport Team
Utilize a checklist to assess safety before and during transport.
Improvement strategies – Oxygen

<table>
<thead>
<tr>
<th>Flowrate (L/min)</th>
<th>1000-1400 PSI</th>
<th>1500-1900 PSI</th>
<th>2000 PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>9 hr 20 min</td>
<td>14 hr</td>
<td>18 hr 40 min</td>
</tr>
<tr>
<td>1</td>
<td>4 hr 40 min</td>
<td>7 hr</td>
<td>9 hr 20 min</td>
</tr>
<tr>
<td>2</td>
<td>2 hr 20 min</td>
<td>3 hr 30 min</td>
<td>4 hr 40 min</td>
</tr>
<tr>
<td>3</td>
<td>1 hr 33 min</td>
<td>2 hr 20 min</td>
<td>3 hr 7 min</td>
</tr>
<tr>
<td>4</td>
<td>1 hr 10 min</td>
<td>1 hr 45 min</td>
<td>2 hr 20 min</td>
</tr>
<tr>
<td>6</td>
<td>1 hr 33 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1 hr 10 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>56 min</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>37 min</td>
<td></td>
</tr>
</tbody>
</table>

2000 PSI tank is recommended for > 6 L/min flowrate.

Date: __________
Maintain oxygen flow rate at: ________ L/Min

O₂

Tank EMPTY TIME
(e.g. 13:00)

_____.____  ___
National Clinical Practice Guidelines that state:

“When a patient with a tracheostomy is moved between different clinical areas, they must be supervised by clinical staff who: have tracheostomy care within their scope of practice AND are able to care for them as appropriate to the patient’s clinical condition, interventions and vulnerability of airway.”
Improvement strategy: AEDs Installed
Results

• How will the next patient be harmed?

• How can we prevent the next patient from being harmed?
References

Questions?