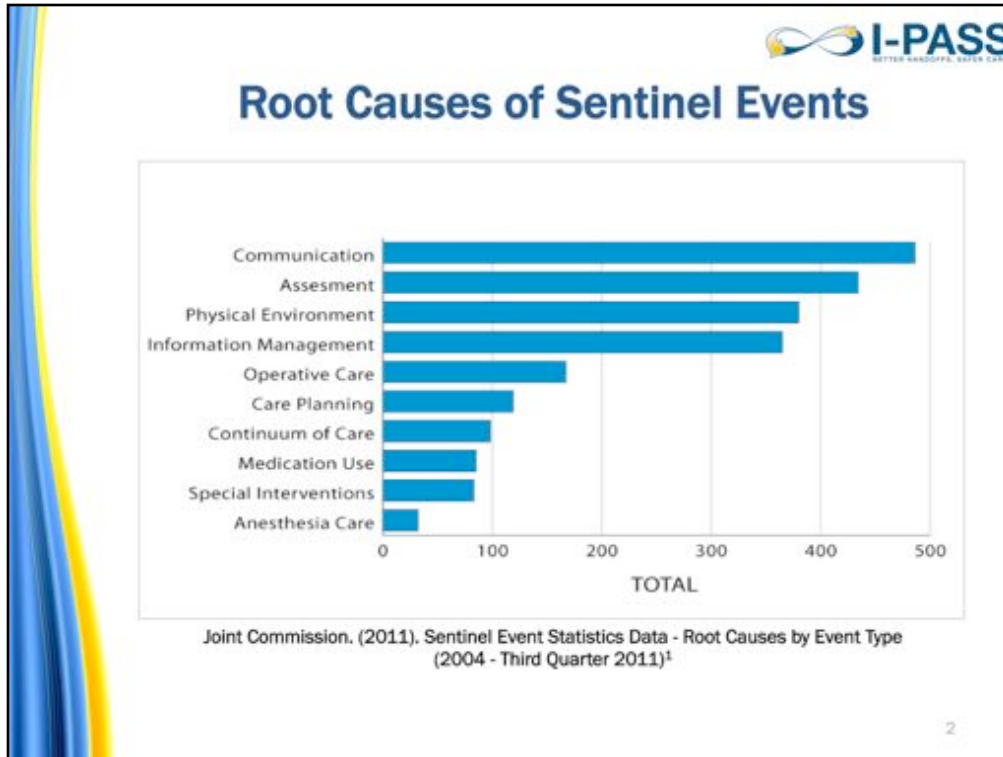




**Better handoffs. Safer care.**  
*Just-in-time Module*





Disclaimer: The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small proportion of actual events. Therefore, these root cause data are not an epidemiologic data set and no conclusions should be drawn about the actual relative frequency of root causes or trends in root causes over time.

A reminder of why IPASS is important:

- Communication is the lead cause sentinel events.
- Shorter work hours have led to increased hand offs and no change in patient quality and safety data.
- We work as a team and not as individuals when caring for patients

Improving caregiver communication is essential because, as you can see, communication failures are the primary root cause of sentinel events – that is, **the most serious— often fatal— preventable adverse events in hospitals.**

**ADDITIONAL INFORMATION AND REFERENCE MATERIAL:**

The reason that improving caregiver communication has been so heavily emphasized within the patient safety movement becomes apparent when one looks at the underlying causes of medical error. Using root cause analysis to determine contributing factors shows that of sentinel events that were voluntarily reported to JCAHO over a ten year period, the top contributing factor representing nearly 2/3 of all cases was found to be inadequate communication amongst providers.



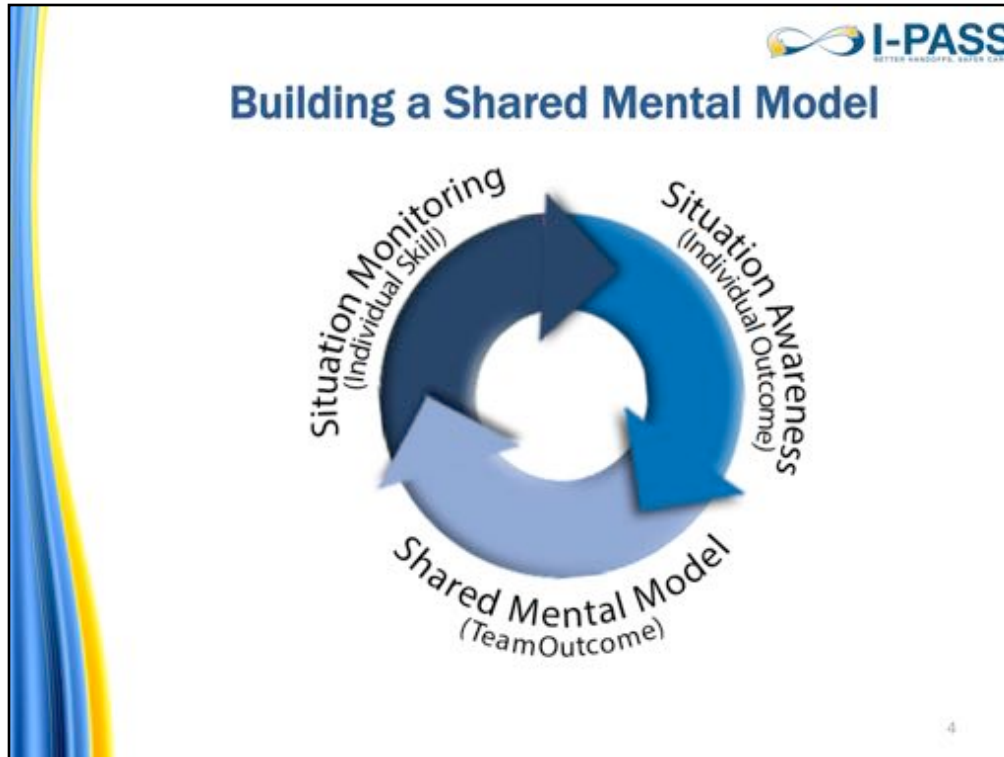
**TeamSTEPPS** stands for: *Team Strategies and Tools to Enhance Performance and Patient Safety*.

TeamSTEPPS was developed by the Department of Defense Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (AHRQ). It is an evidence-based framework based on over 25 years of research on team performance in a variety of different areas. It is now being rolled out across the nation in an effort to improve quality and patient safety across the continuum of healthcare delivery.

TeamSTEPPS is composed of 4 specific skill areas characterizing high-performing teams. . .  
<read last 4 bullet points>

These four skills result in the team competencies of: team performance, team knowledge (shared mental model) and team attitudes.

When these competencies are obtained increased quality care and patient safety result.



In order for a team to function effectively, all individuals on the team must be aware of what is going on at all levels: amongst team members, staff, patients, families.

Each individual actively assesses the clinical situation which is the skill of situation monitoring. When you are assessing the clinical situation and all the factors involved and doing so accurately and efficiently you have situation awareness.

When all team members have situation awareness and are sharing their awareness with other members a shared mental model is obtained. This shared mental model is essential amongst team members during the handoff as the day team and night team are really one complete team taking care of the patients. Patient safety will be achieved when these teams have a shared mental model.

## When Mental Models are Not Shared

- Example: When your child takes the bus home and you thought the plan was to pick him up at school



Photo courtesy of K. Michael Miley/Wikimedia Commons

## Cross Monitoring

- 'Watch each other's back'
- Monitor actions of team members
- Help others maintain Situation Awareness



You can recall in the training when the junior resident was actively assessing the situation and recognized a potential error when entering the room. He did not let the procedure proceed until the error was corrected. He was actively cross-monitoring the actions of the senior resident and nurse.

When you are cross monitoring you are monitoring the actions of your team members to help prevent errors themselves or correcting errors that have the potential to lead to adverse events.

You are helping each other maintain his or her situation awareness.

In handoffs the night team or cross-covering team is looking out for the day team and vice versa: everyone is responsible for the patients

## Briefs and Debriefs

Briefs	Debriefs
<p style="text-align: center;"><b>Beginning of shift</b></p> <ul style="list-style-type: none"> <li>▪ Team Members?</li> <li>▪ Goals understood?</li> <li>▪ Roles and responsibilities?</li> <li>▪ Plan of Care?</li> <li>▪ Staff Availability?</li> <li>▪ Workload?</li> <li>▪ Resources</li> </ul>	<p style="text-align: center;"><b>End of shift</b></p> <ul style="list-style-type: none"> <li>▪ Clear communication?</li> <li>▪ Roles understood?</li> <li>▪ Situation awareness?</li> <li>▪ Work load ok?</li> <li>▪ Assistance offered?</li> <li>▪ Errors?</li> <li>▪ Feedback?</li> </ul>

Briefs are held for planning purposes, and are sometimes referred to as team meetings. Items that might be included in a team brief are listed here. As you can see, it is somewhat analogous to a preflight checklist used in aviation. Can you envision how a brief might be beneficial to your patient care team for example on the inpatient service?

As a corollary to the brief, the debrief is a recap of a situation or the day's events for the purposes of process improvement. Debriefs are most effective when conducted in an environment where honest mistakes are viewed as learning opportunities. They should be brief, eg. 3 minutes or less, and facilitated by the team leader. To maintain effectiveness, they should not be forums for assigning blame or failure to specific individuals.

Although the debrief is meant to be a process improvement tool, at times it may be necessary to conduct a complete process review and system redesign if the same issues or events continue to reoccur. These recurring issues may be identified during a debrief and could then be mapped out and accessed at a designated time in the near future.

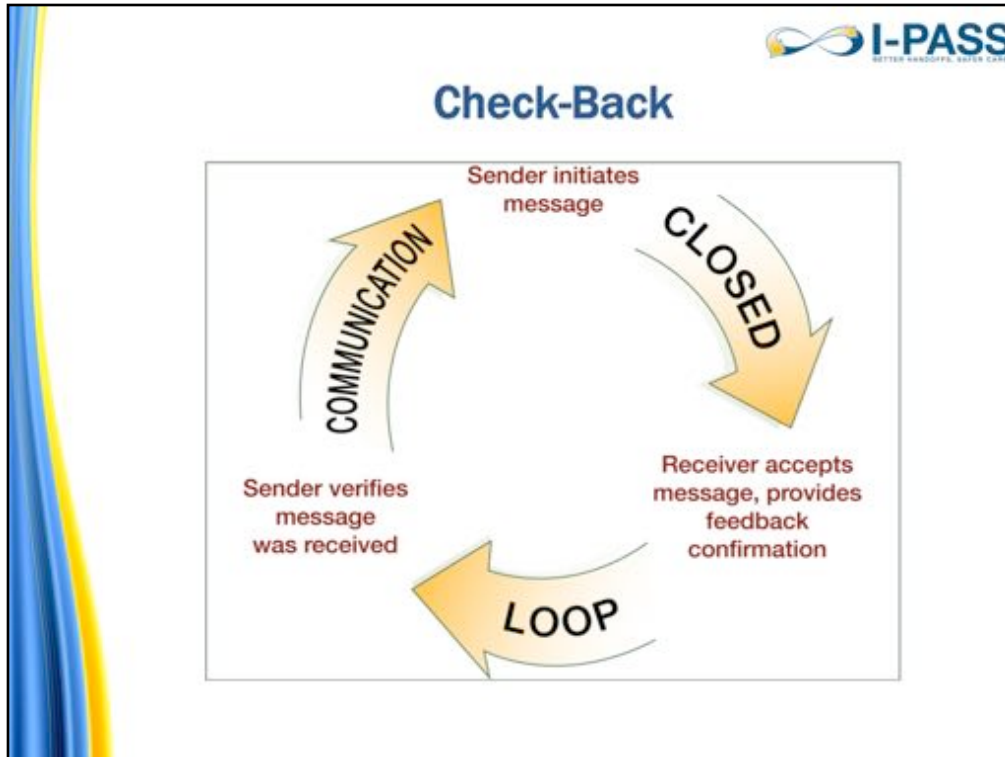
## Huddle

- Opportunity to express concerns
- Anticipate outcomes and talk about contingency plans
- Assign Resources
- Come to Consensus



Recall that a huddle was used when a patient was actively changing. All the members of the team regrouped and discussed the plan of care, anticipated what would happen next and gave assignments as what to do next.





Check-Back a closed loop strategy used to verify and validate information exchanged. The strategy involves the sender initiating a message, the receiver accepting the message, the receiver accepting the message and confirming what was communicated, and the sender verifying that the message was received.

## Putting it all together

### Using TeamSTEPPS in Handoffs

<b>Cross Monitoring</b>	Night team recognizes medication error during handoff and informs the day team
<b>Brief</b>	Night team goes over action list and divides tasks and new admits and plans for time to regroup
<b>Debrief</b>	In the morning, the night team and day team discuss what went well with the handoff and items the night team would have liked to know
<b>Huddle</b>	A patient is unstable, the day and night team examines the patient together and discusses plans for the night with the nurse
<b>Check-Back</b>	The intern obtains new information to add to the hand off from the senior resident, this information is repeated by the intern to confirm communication

## Essentials of Team Function



To review, there are multiple barriers to clear communication. The complete list of tools and strategies we discussed in the Team STEPPS training is listed here and we reviewed briefs, huddles, debriefs, check back and cross monitoring and who these things might directly apply to hand offs. The result is improved team performance, a shared mental model amongst all team members and most importantly increased patient safety.

Communication and Teamwork  
come together in

**HANDOFFS!**

## Effective Handoffs

- Leader, assigned roles
- Unambiguous transfer of responsibility
- Protected time and space
- Standardized format
- Up-to-date, accurate, relevant information
- Awareness of participants'
  - Learning styles
  - Knowledge of patients
  - Level of training
  - Clinical experience
- Creation of a shared mental model through active participation of receiver

Certain elements are key to ensuring effective verbal and written handoffs.  
Recall the various learning styles:

Active-----Reflective

Sensing-----Intuitive

Visual-----Verbal

Sequential-----Global

## Effective Verbal Handoffs

- Face-to-face
- Structured format, beginning with high-level overview
- Appropriate pace
- Closed-loop communication → shared mental model

Structured format begins with high-level overview:

Describe the current situation of the team

le: Number of sick and unstable patients

le: Number of pending admissions and discharges

Identify the attending or fellow on-call or other medical backup

Closed loop communication ensures a shared mental model

Solicit check-back of salient points

Prompt for clarifying questions

Be aware of non-verbal communication (eye contact, attention, etc.)

## The Printed Handoff Document

- Supplements the verbal handoff
  - Allows receiver to follow along
  - Provides more comprehensive information
- Succinct, specific, accurate, up to date
- Senior/supervising resident should edit and ensure quality
  - Incorporate time for review and update into daily workflow

The printed handoff document supplements the verbal handoff

Allows the receiver to follow along as the verbal handoff is communicated.

Provides more comprehensive information, ie: medications, allergies, room number

Creates efficient information transfer

Serves as a back-up for the verbal handoff (and vice versa)

The printed handoff needs to include high-quality information

Succinct, specific, accurate, up-to-date

Not a running discharge summary!

Don't cut and paste

Senior/supervising resident should be in charge of editing the document to ensure quality

Updating the printed handoff needs to be a part of the daily workflow

## The I-PASS Mnemonic

- I **Illness Severity**  
Stable, “Watcher,” Unstable
- P **Patient Summary**  
Summary statement; events leading up to admission;  
hospital course; assessment; plan
- A **Action List**  
To do list; timeline and ownership
- S **Situation Awareness & Contingency Planning**  
Know what’s going on; plan for what might happen
- S **Synthesis by Receiver**  
Receiver summarizes what was heard, asks  
questions; restates key action/to do items

*\*Brief\* overview of the mnemonic, before reviewing each component separately...*





## Illness Severity A Continuum



- **Watcher** : *any* clinician’s “gut feeling” that a patient is at risk of deterioration or “close to the edge”

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Language has to be customized to institution and monitoring systems available

Some institutions use standardized scoring systems, like CHEWS scores

Sick or not sick may be the simplest way to think about the patients

A “watcher” is any patient for whom a team member has a “gut feeling” that something may go wrong

## P = Patient Summary

- Describes succinctly:
  - Reason for admission (summary statement)
  - Events leading up to admission
  - Hospital course
  - Ongoing Assessment
  - Plan for hospitalization
- Is concise, utilizes semantic qualifiers, focuses on active issues

**Patient Summary**

**Summary Statement**  
lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

**Events Leading Up to Admission**  
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**Hospital Course**  
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<p><b>Ongoing Assessment by Problems/Diagnoses</b></p> <ul style="list-style-type: none"> <li>• <small>lorem ipsum dolor sit amet, consectetur adipiscing elit</small></li> <li>• <small>lorem ipsum dolor sit amet, consectetur adipiscing elit</small></li> </ul>	<p><b>Plan by Problems/Diagnoses</b></p> <ul style="list-style-type: none"> <li>• <small>lorem ipsum dolor sit amet, consectetur adipiscing elit</small></li> <li>• <small>lorem ipsum dolor sit amet, consectetur adipiscing elit</small></li> </ul>
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*\*Brief\* overview of the components of the Patient Summary, before reviewing each of the 4 components separately...*

Promotes a shared mental model:

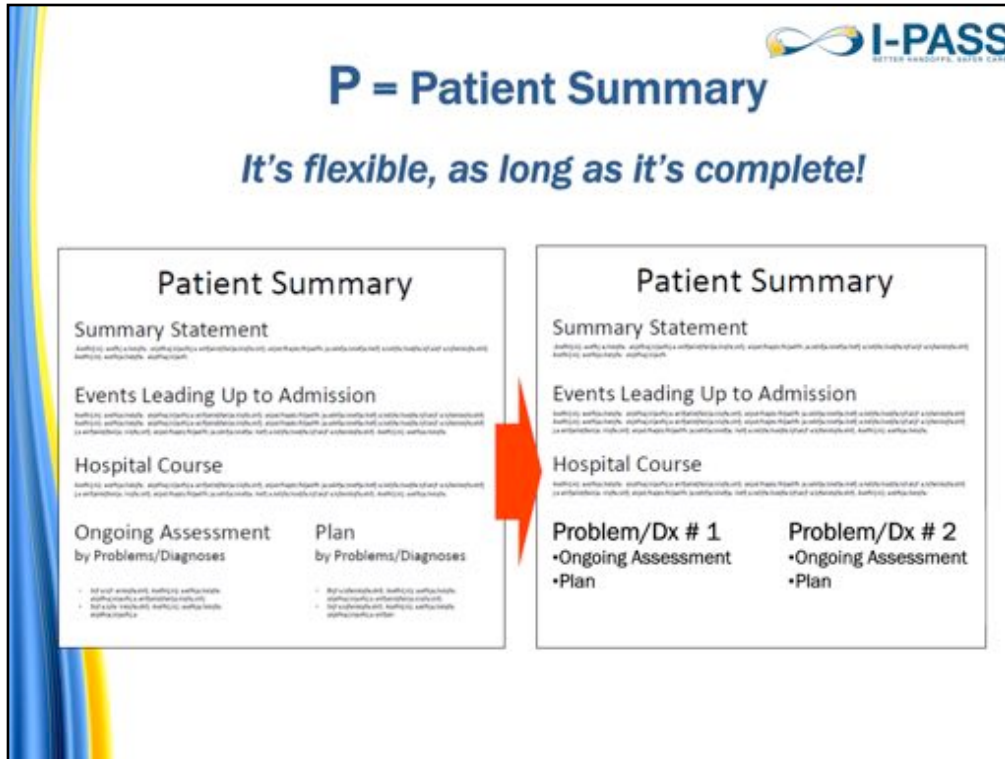
The patient summary provides the basis for creating a shared understanding, so the next caregiver is prepared to carry out the treatment plan and can anticipate what may happen, or what may go wrong.

Recall semantic qualifiers:

- Onset – Acute, sub-acute, chronic
- Course – Intermittent, progressive
- Severity – Mild, moderate, severe
- Quality – Dull, burning, sharp

# P = Patient Summary

*It's flexible, as long as it's complete!*



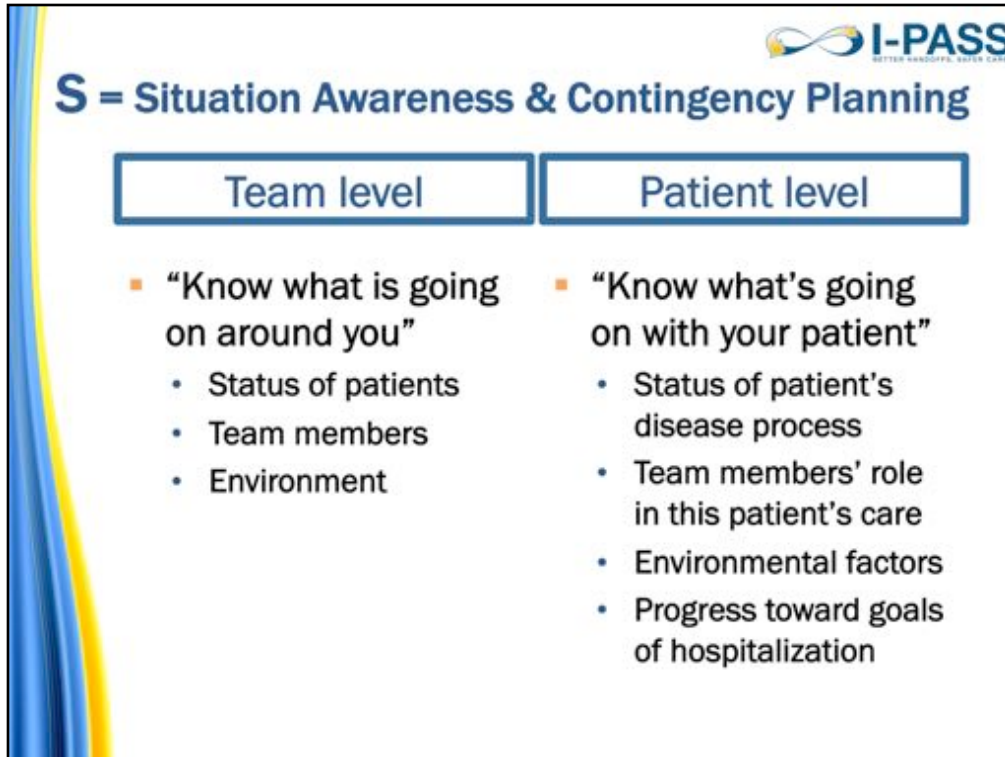
When articulating the expected course, it is important to consider what you think is the expected trajectory or the patient’s illness – i.e. will they get better, stay the same, or get worse during the period another will be caring for them.

Plan is not a to do list for the night, but rather is associated with problems/systems

## A = Action List

- To do list
- Includes specific elements:
  - Timeline
  - Level of priority
  - Clearly-assigned responsibility
  - Indication of completion
- Needs to be up-to-date
- If no action items anticipated, clearly specify “nothing to do”

Action List is a To Do List with attention to timelines, level of priority, assigned responsibility (if other than receiver), indication of completion (ie: checkbox).



Situation Awareness may apply to the team or an individual patient:

    Status of patient – patient history, vital signs, medications, physical exam, plan of care, psychosocial

    Team members – fatigue, workload, task performance, stress

    Environment – facility information, administrative information, human resources, triage acuity, equipment

    Progress toward goal – status of team’s patient, established goals of team, tasks/actions of team, plan still appropriate

## S = Situation Awareness & Contingency Planning

### Effective Contingency Planning

- Identify concerns
- Articulate what might go wrong
- Define the plan
  - List interventions that have/have not worked
  - Identify resources for assistance
- For stable patients: “I don’t anticipate anything will go wrong.”

Identify concerns

Use introductory statements: “I’m very concerned about this patient.”

Be explicit: “This is your sickest patient.”

Consider code status, difficult psychosocial situations, nursing and family concerns

*A little more detail, if you need it:*

*What should be included in contingency plans:*

- Which patients are **worrisome** – who are the sickest patients, which patients are at risk for decompensation
- What **may go wrong** and **what to do** – If a patient is at risk for decompensation, provide treatments hints and recommendations if something should occur. Example: If an asthmatic develops worsening respiratory distress, begin continuous albuterol therapy.
- What **therapies or interventions** will help – Example: racemic epinephrine will help if this child with underlying airway abnormalities develops stridor, if a bronchiolitic develops retractions attempt NP suctioning and start supplemental oxygen therapy.
- **Resources** for assistance – Call attending, senior or fellow, contact consultant, call MRT/RRT.
- Difficult **family or psychosocial situations** – Example: Parents who are divorced and social situation is strained, grandmother is guardian and has decision making capacity, child has been removed from parent’s custody.
- Nursing and family **concerns** – Highlight which patients the nurses and families are concerned about, even if the residents are not concerned.
- **Code status**

## S = Synthesis by Receiver

- Brief re-statement of essential information in a cogent summary
  - Demonstrates information is received and understood
- Opportunity for receiver to
  - Clarify elements of handoff
  - Have an active role in handoff process

This echoes the TeamSTEPPS tool of “check-back.”

Ensures effective transfer of information and responsibility -> promotes a shared mental model.

Remember,  
*TeamSTEPPS™* elements and  
effective handoffs go hand-in-hand



## Handoff is a Team Sport!

*The whole is greater than the sum of the parts*

- Team handoff is the “gold standard”
  - Very few programs achieve this
- If team handoff is not possible, do a BRIEF!
  - Intern and Senior plan for the night
  - Agree on roles, identify holes
    - Illness severity should be verified for all patients
      - Unstable patients should be reviewed in detail and examined together
  - PGY1 should do another read-back and verify

Team handoff is the “gold standard”. Does it really make sense that we have the most junior people handing off to the most junior people, without direct supervision? There are many reasons why team handoffs are the ideal, but we also recognize that they are not always possible. Some situations may necessitate separate handoffs for different levels (including attendings). In these situations, it is essential to standardize how the R1 and R2/3 to communicate after the handoff. TeamStepps can help. Do a BRIEFT right after everyone finishes handoffs. Plan for the night; agree on role; identify holes. Illness severity should be verified for all patients, and UNSTABLE patients should be reviewed and examined together. The R1 should do a mini synthesis-by-receiver read-back with the senior.

## Handoffs At Our Hospital

*Are we meeting the gold standard?*

- Where do we do handoffs?
  - Is this a quiet place with minimal interruptions?
- When do we do handoffs?
  - Is it at a scheduled time?
- Who is present for handoffs?
  - Do we need an intern/senior brief?
    - When/where?

This slide is intended to guide a 5-minute discussion at each site, clarifying the logistics, including the interface between PL2/3s and PL1s for each handoff.

Patient	Medication / Diet	Admission Diagnosis / Course	Problem List	Anticipated Problems / Risks																																																																														
<p>MSE Doe, Johnny 9/21/2009 MRN: 45612378 Visit: 45615 Adv Dir: M Adm Date: 3/18/11 HDW: 2 Attending: Brown, Julie Code Status: Allergies: NKDA Wt: 12 kg Access: Resident: Cameron, Jack</p>	<p>Keppon po Raxson: Epi</p>	<p><b>Illness Severity:</b></p> <p><b>Patient Summary:</b> 18mo ex-24 week premature infant with h/o severe BPD, seizure disorder and FTT w/ G-tube, admitted for bronchiolitis.</p> <p>Presented with 2 days of fever, one day of cough, and acute respiratory distress with severe subcostal retractions.</p> <p>Hospital course: Bronchiolitis had been improving but developed deep retractions and crackles this afternoon, CXR ordered</p> <p>Developed fever today, cultures negative, not on antibiotics</p> <p>On GT feeds</p> <p>Continues on home seizure meds</p>	<p><b>Patient Summary, cont:</b></p> <p>- Bronchiolitis - has been having more distress today and is febrile, still think this is primarily viral bronchiolitis but may need to consider pneumonia if he continues to deteriorate</p> <p>- FTT - on G-tube feeds at maintenance rate</p> <p>- Seizure- stable, none since admission, continue home med</p>	<p><b>Action List:</b></p> <p><input type="checkbox"/> Assess baseline respiratory status after basdoff and every few hours</p> <p><input type="checkbox"/> Follow up CXR</p> <p><input type="checkbox"/> Monitor in and out</p> <p><input type="checkbox"/> Monitor fever curve</p> <p><b>Situation Awareness and Contingency Planning:</b></p> <p><input type="checkbox"/> If no improvement after racemic epi, call ICU eval</p> <p><input type="checkbox"/> If CXR suggestive of pneumonia or persistently febrile, discuss antibiotics with seizer</p> <p><input type="checkbox"/> If continues on IVF, order electrolytes in the morning</p> <p><input type="checkbox"/> If seizure &gt; 5 min: give ativan</p> <p><b>Stratified by Receiver:</b></p>																																																																														
<p>Report 07/19 06:00 - 07/19 06:00 07/19 06:10 I 07/19 06:10 F 07/19 06:10 SBP 07/19 06:10 DBP 07/19 06:10 RR 07/19 06:10 SpO2 07/19 06:45 W</p>	<p>From 07/18 06:00 - 07/19 06:00</p> <table border="1"> <thead> <tr> <th>In</th> <th>Out</th> </tr> </thead> <tbody> <tr> <td>GI</td> <td>Stool</td> </tr> <tr> <td></td> <td>Stool/s</td> </tr> </tbody> </table>	In	Out	GI	Stool		Stool/s	<p>Date Time</p> <table border="1"> <thead> <tr> <th>MC</th> <th>Sp</th> <th>Sp2</th> <th>Sp4</th> <th>Sp6</th> <th>Sp8</th> <th>Sp10</th> <th>Sp12</th> <th>Sp14</th> <th>Sp16</th> <th>Sp18</th> <th>Sp20</th> <th>Sp22</th> <th>Sp24</th> <th>Sp26</th> <th>Sp28</th> <th>Sp30</th> <th>Sp32</th> <th>Sp34</th> <th>Sp36</th> <th>Sp38</th> <th>Sp40</th> </tr> </thead> <tbody> <tr> <td>****</td> <td>80</td> <td>78</td> <td>76</td> <td>74</td> <td>72</td> <td>70</td> <td>68</td> <td>66</td> <td>64</td> <td>62</td> <td>60</td> <td>58</td> <td>56</td> <td>54</td> <td>52</td> <td>50</td> <td>48</td> <td>46</td> <td>44</td> <td>42</td> <td>40</td> </tr> </tbody> </table>	MC	Sp	Sp2	Sp4	Sp6	Sp8	Sp10	Sp12	Sp14	Sp16	Sp18	Sp20	Sp22	Sp24	Sp26	Sp28	Sp30	Sp32	Sp34	Sp36	Sp38	Sp40	****	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40	<table border="1"> <thead> <tr> <th>NO2</th> <th>BN</th> <th>Cr</th> <th>Gl</th> <th>Ca</th> <th>Mg</th> <th>Ph</th> <th>PT</th> <th>INR</th> <th>TB</th> <th>A/G</th> <th>ALT</th> <th>AP</th> <th>Alb</th> </tr> </thead> <tbody> <tr> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> <td>.</td> </tr> </tbody> </table>	NO2	BN	Cr	Gl	Ca	Mg	Ph	PT	INR	TB	A/G	ALT	AP	Alb	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
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## Now You're Ready for an I-PASS Handoff!



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