

RSNA 2014 Quality Story Boards QSE130

## *Interdepartmental Process for Improving Intravenous (IV) Access and Turnaround Times in CT*

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### *Background*

➤ IV defects in CT and incomplete patient preparation result in extended procedural wait times and may exacerbate ED crowding.

- What is an IV defect?
  - Incompatible IV gauge
  - Incompatible IV site
  - Incompatible IV tubing
  - Loose connection
  - Non-working IV
  - Painful/sore/infiltrated IV site

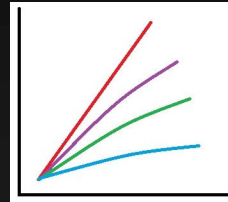


# Goals

➤ Implement measures that would achieve a substantial reduction in the IV defect rate for ED and Inpatients seen in the CT department.

- Target Defect Rate: 0 %
- Successful contrast administrations
- High-quality scans & fast results
- Fewer repeats or additional exams
- Fewer interventions in CT
- Shorten time away from primary care staff & resources
- Elimination of bottlenecks
- Reduced procedural wait times

Bending the curve



# Design, Methods, Implementation

**Handover & Prep Sheet for all CT**

Patient Label

PN Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Location: \_\_\_\_\_

Step 1: Prep immediately prior to transport for all CTs

- ✓ Meet following needs
- ✓ Place All, immobile patient on an airgel
- ✓ Hair, Nails, resident needs if present
- ✓ Saline lock IV if possible
- ✓ ID band present
- ✓ Transport sheet present

Information for IV contrast CLO

Step 2: Complete for IV contrast CLO

- ✓ Clear health care staff about IV prep
- ✓ IV access
- Diffusion Dialysis 2-200
- Location: \_\_\_\_\_

• If not at an outside facility, call 8-4733 to arrange

- Central line/NG/ECG/monitor
- Power up patient
- Clear inventory for TCC
- Use of single power lock needs to protect power ports

Step 3: After completion call CT @ 8-4733

**Diffusix IV 22g**

**Aspicatheters with separate connector tubing**

Correct extension: ESH 75887

**Avoid IV Defects**

- Primed/flushing the line
- Catheter fully inserted
- Insertion site not visible from fluoroscopy

**BNL Comments**

**CT PATIENT PREPARATION COMMUNICATION PROCESS**

1. CT Technologist (CT) and Registered Nurse (RN) prepare to administer CT. Get ready for CT in room or outside room (patient already present).
2. Registered Nurse (RN) and Patient Transport Staff (PTS) prepare to transport patient to CT. Get ready for CT in room or outside room (patient already present).
3. CT Technologist (CT) and Registered Nurse (RN) prepare to administer CT. Get ready for CT in room or outside room (patient already present).

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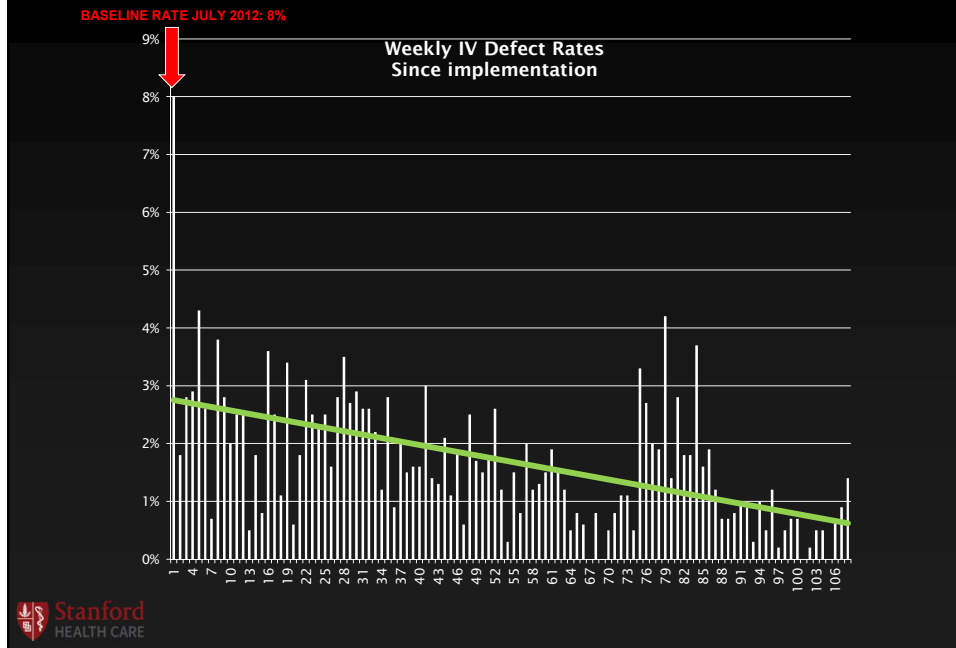
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- A team of CT Technologists, Registered Nurses, and Patient Transport Staff designed and implemented the new “CT Handover & Preparation Sheet.” The sheet demonstrates correct patient preparation as well as IV placement standards required for successful CT examinations. The completed sheet needs to accompany every patient coming to CT.
- The same multi-departmental team streamlined and put into effect a standardized “CT Patient Preparation Communication Process.” This process aims to make the communication between CT staff and primary nursing staff clear, effective, and prompt.



## Results



## Conclusions & Further Study

➤ Since the house-wide rollout of the “CT Handover Sheet” and implementation of the standardized “CT Communication Process” in July of 2012, we have achieved and maintained a substantial reduction in IV defects for ED and Inpatients seen in our department. The pre-rollout baseline rate for IV defects was 8%; in September of 2014, the average defect rate was 0.38%.

- IV defect rate reduction is an ongoing process.
- IV defects are documented by CT staff.
- IV defect reports are calculated weekly and distributed to nurse managers.
- Our department continues to identify opportunities for improvement & remediation through education.
- Staff huddles are an effective way to educate and disperse information to the nursing staff regarding IV defect prevention.
- Feedback and cooperation between CT staff and primary nursing staff is essential to maintaining the low defect rates we have achieved.