Improving Team Performance During the Preprocedure Time-Out

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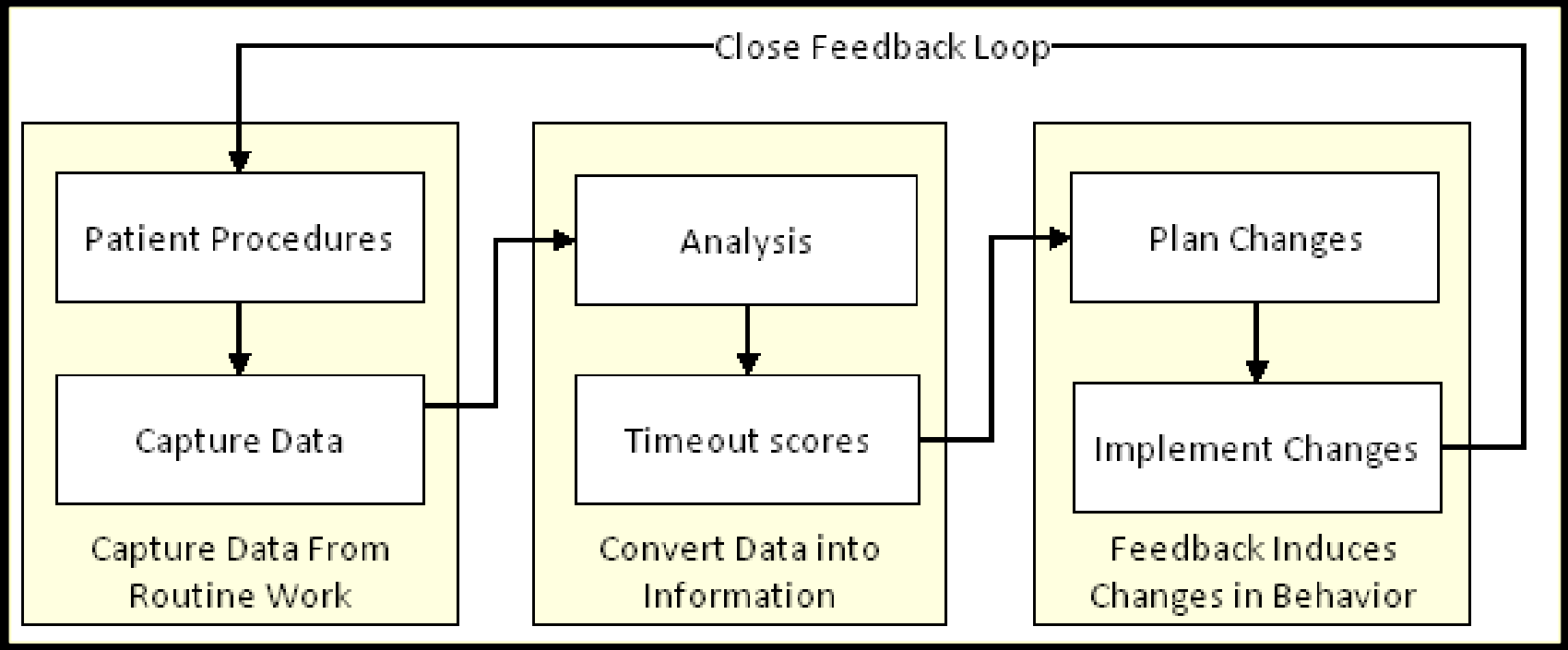
Purpose

- The preprocedure time-out is a high profile safety measure
  - Small lapses invite substantial scrutiny
- Time-out failures
  - Implicated in wrong site, wrong patient, wrong procedure events
  - Attributed to breakdowns in teamwork
    - “Shame and blame” is common but ineffective
    - Invest in identifying and fixing common failure modes

Methods

- Overall strategy for data-driven improvement



Recording Time-Outs

Two camera system used to record events. JVIR (2010) 21:725
Auditing process for time-outs. J Quality and Pt Safety (2012) 38:387

Scoring Sheet

TIME-OUT AUDIT SHEET

Barnes-Jewish Hospital | Washington University in St. Louis School of Medicine

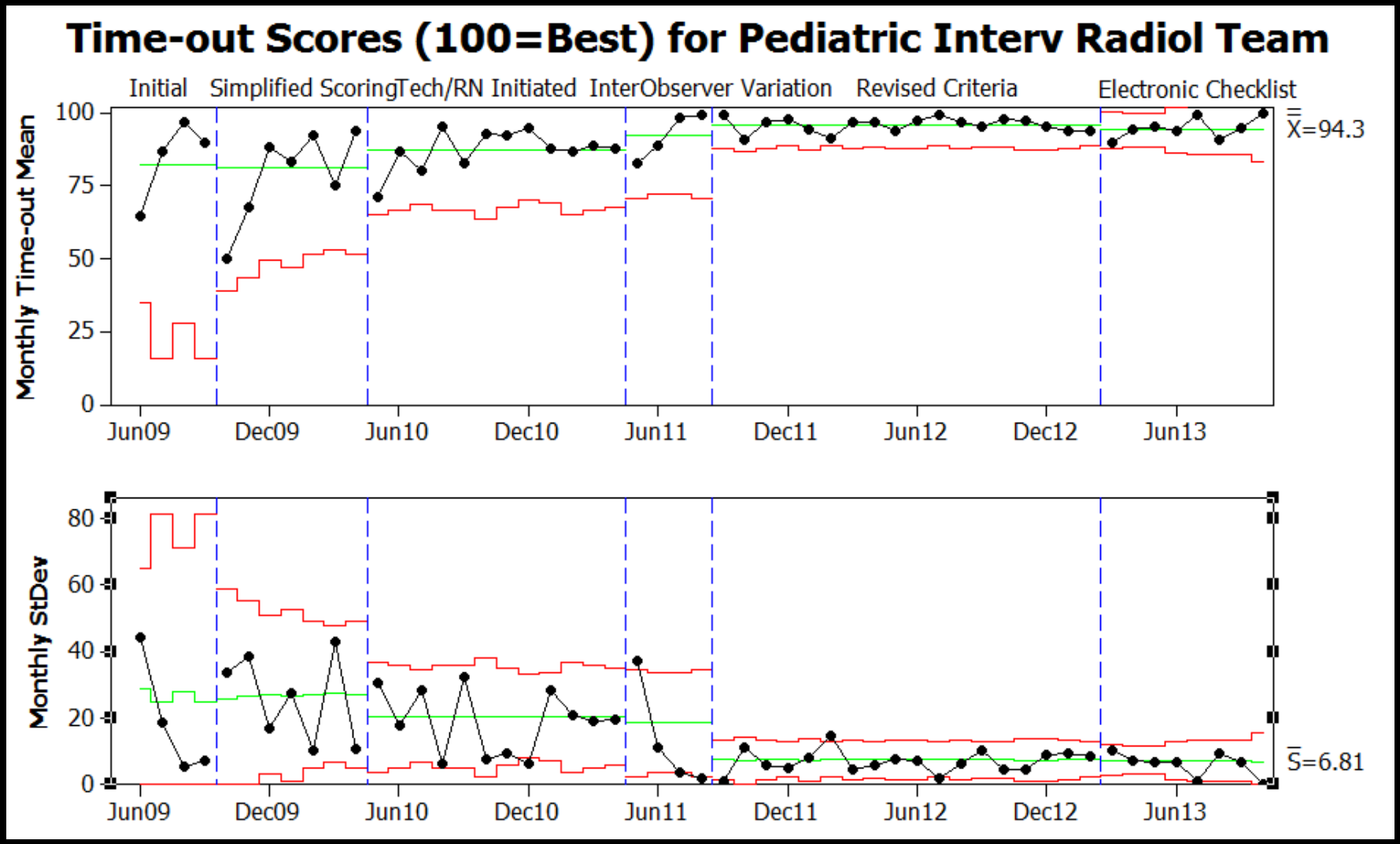
Procedure Date: _____ Procedure Start Time: _____ Physician/PA: _____

Reviewed by & Date: _____ Procedure End Time: _____ Nurse: _____

Time-out Start: _____ Time-out End: _____ Tech: _____

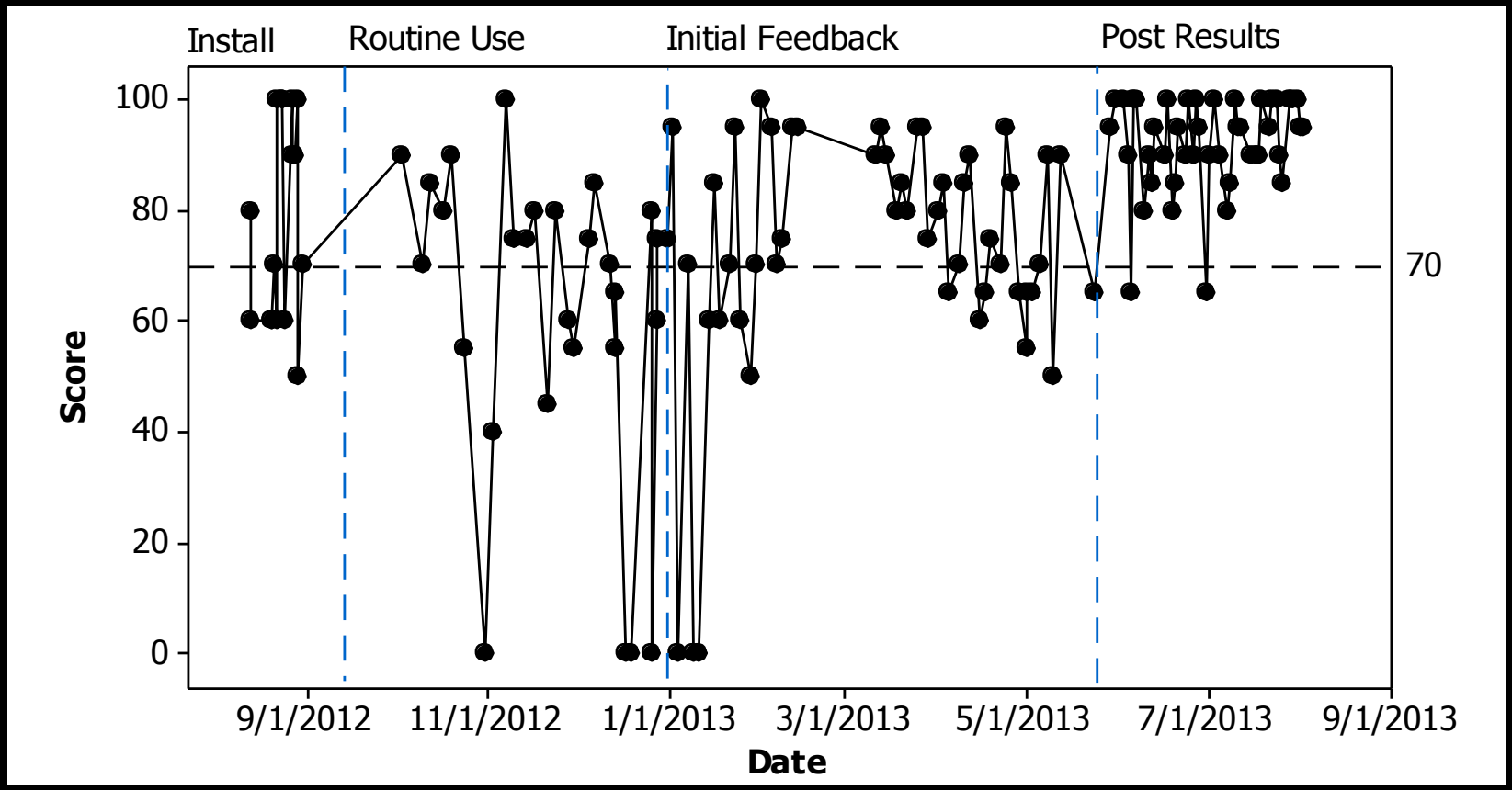
	Action	Points Awarded	Comment
1.	Initiated by proceduralist or team member (10 points)	1. _____	_____
2.	All activities suspended (10 points)	2. _____	_____
3.	Identify the patient (10 points)	3. _____	_____
4.	Confirm site or site marking (10 points)	4. _____	_____
5.	Review allergies (10 points)	5. _____	_____
6.	Confirm consent and order (5 points each)	6. _____	_____
7.	Confirm whether specimen will be collected (10 points)	7. _____	_____
8.	Procedure specific concerns or sidebars (10 points)	8. _____	_____
9.	Confirm type of contrast on table and name on monitor (5 points each)	9. _____	_____
10.	All agree (10 points)	10. _____	_____
		Total Score _____	_____

Each week 2-3 time-outs per procedure room are reviewed and scored according to predetermined criteria. These scoring criteria have undergone multiple revisions. The current versions reflect team input as well as opportunities for improvement that were identified during analysis of prior events.

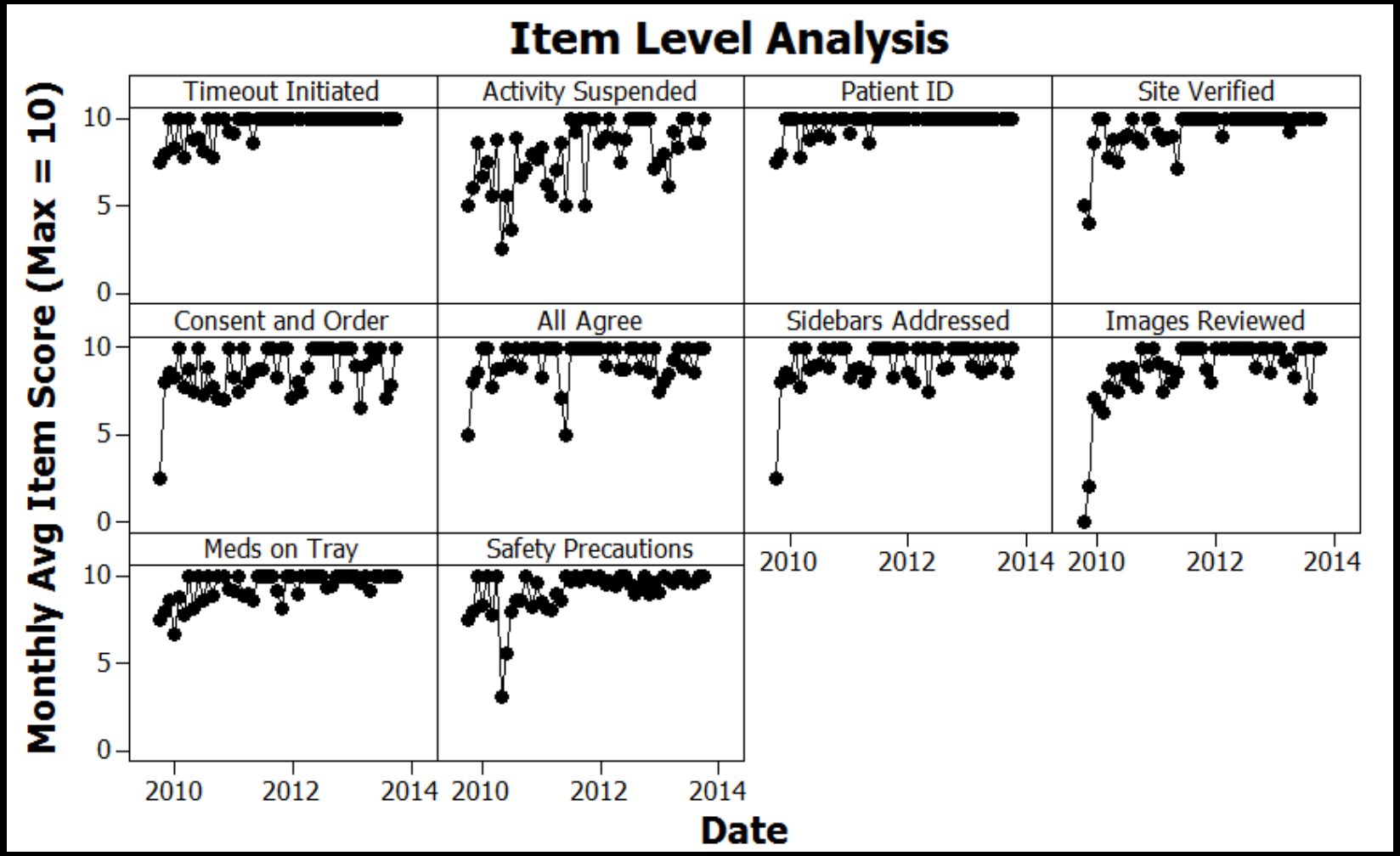


Control chart of performance by the pediatric IR team shows improvement after a series of process changes over 4 years. Not only has the average score increased but variation has decreased. Most recently the team developed an electronic version of the checklist and completes it during the time-outs.

Adult IR Team Performance



A recording unit was installed in one of the 7 adult IR procedure rooms in August 2012. While procedures were routinely recorded, feedback was not provided until January 2013. Results improved further after the posted time-out scores were regularly updated in June 2013. Results of individual time-outs are shown.



Detailed scoring allowed analysis of which items commonly led to lower overall scores. This data from the pediatric IR team found that image review was frequently overlooked during the time-out. This led to technologists routinely loading prior studies onto a monitor visible in the procedure room and subsequent improvement in the monthly average score for this item.

Factors Driving Improvement

- Hawthorne Effect
  - Team performance improves with observation
- Feedback
  - Posting scores and feedback on failure modes
    - Teams need to know what criteria auditors use to award credit for each item
- Revising the process
  - Adjusting time-out process to address events
    - Event caused by order/consent discrepancy led to reviewing these documents during the time-out

Lessons Learned

- Recording by itself does not drive improvement
  - Data analysis and feedback are crucial
  - Conversations between frontline teams and auditors drives improvement
- Promoting checklist compliance helps build a safety culture
- Video Recording vs Direct Observation
  - Video audits are more accurate and efficient
    - Initial investment provides long term return