

### Purpose

- To address system barriers to timely reporting and documentation of critical test results.
- To create a completely closed loop system beginning with the priority of the exam order and ending with critical test results (CTR) reaching the ordering clinician.
- To automate the auditing process for tracking and trending of turnaround times for critical result reporting.

### Background

- Three major issues were identified by the CTR project team:
- The radiology exam order prioritization process was convoluted for the ordering clinician. Over fifty urgency choices were in place.
  - The sheer number of urgency designations made it difficult for the radiologist to prioritize interpretations.
  - There was not a reliable, user friendly process for the radiologist to contact the ordering clinician or document the communication of the CTR.

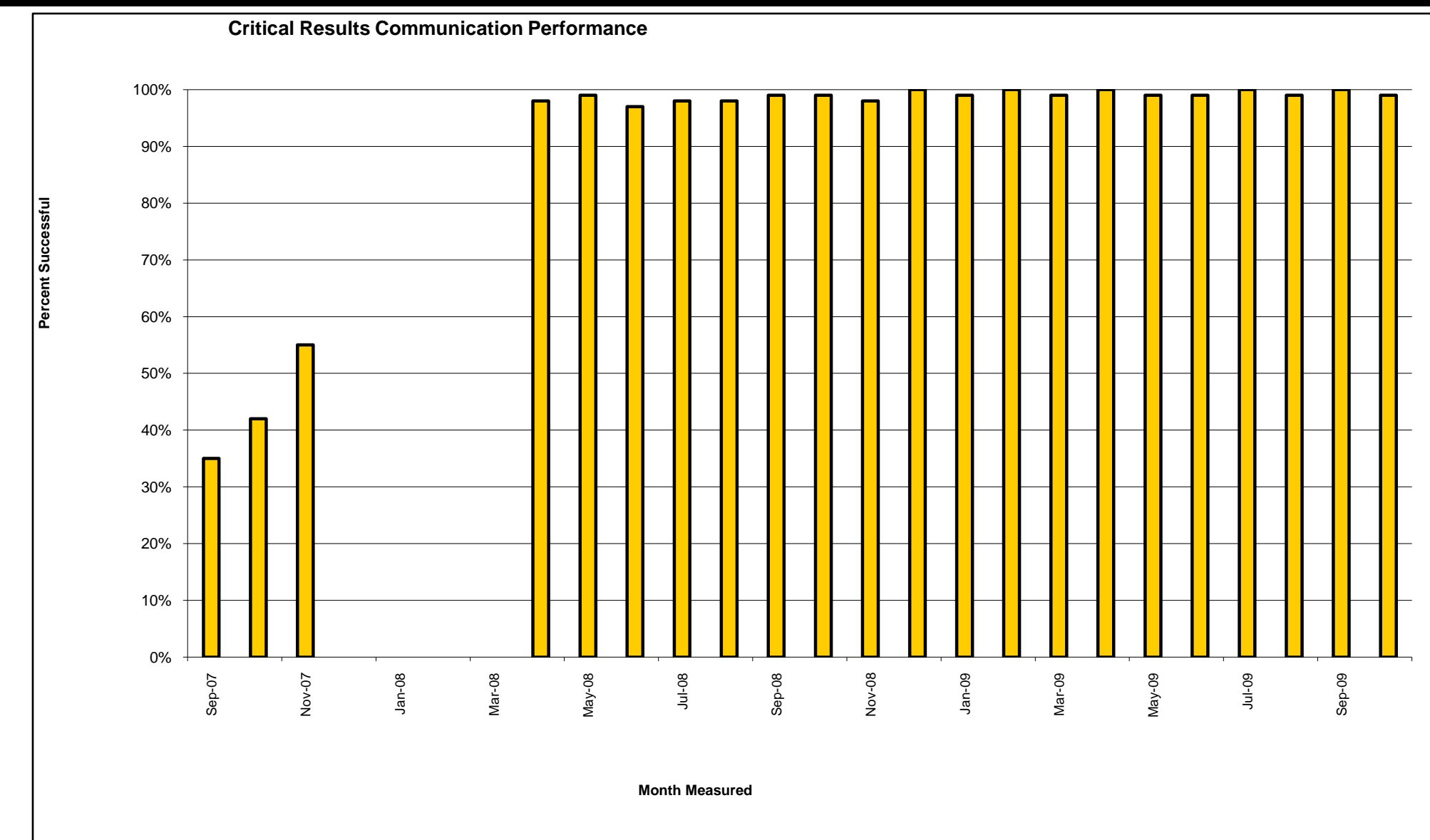
50+ urgency designations listed below reduced to 5.

ASAP	Priority 3: Non-emergent
ASAP (w/in 4-6hrs)	Priority 3: Non-urgent
ASAP (within 2 hrs)	Priority 3: Non-urgent (w/in 24 hrs)
BIOPSY	Priority 3: Stable Pt (w/in 24 hrs)
DISCH (required for pt. Discharge)	Priority 3: Urgent-Stable Pt
ED CT Priority I: Life threat(w/in 5 min)	Priority 4: Routine
ED CT Priority II: Stable Pt.(w/in 1 hr)	Priority 4: Routine (M-F date only)
ED CT Priority III: (non urgent w/in 3hr)	Priority 4: Routine (M-F date)
ED Only: Priority I (w/in 5 mins)	Priority 4: Routine (other date/time)
ED Only: Priority II (w/in 1 hr)	ROUTINE
ED Only: Priority III (w/in 3 hrs)	Routine (w/in 24 hrs)
Elective	Routine (within 6-8 hrs)
Emergency	Routine portable
Level 1: Cardiac/respiratory arrest	RUSH
Level 1: Life threatening status	Scheduled date/time
Level 1: Severe chest trauma (ER)	Soon
Level 1: Sickle cell crisis	Stat
Level 2: Cardiac/respiratory decline	STAT (must confirm w/dept)
Level 2: ET tube placement (1st film)	Today
Level 2: ET tube plc reposition	Urgent
Level 2: ET tube plc-1st postop	ASAP (w/in 2 hrs)
Level 2: ET tube reposition (addl film)	DISCH (required for pt. Discharge)
Level 2: Postop-unstable pt	ED Only: Priority I (w/in 5 mins)
Level 2: Respiratory insufficiency	ED Only: Priority II (w/in 30 mins)
Level 3: Post intervention-stable pt	ED Only: Priority III (w/in 1 hr)
Level 3: Urgent (Stable patient)	ED Only: Priority IV (non-urgent)
Level 4: Eval known process	Other date/time
Level 4: Routine	Routine (w/in 6-8 hrs)
Morning portable	STAT (call dept to confirm)
Other requested date/time	ASAP (w/in 4-6 hrs)
Priority 1: Life threatening	Other date/time
Priority 1: Life threatening ( 1 hr)	Routine (w/in 24 hrs)
Priority 2: Unstable Pt (w/in 6hrs)	STAT (call dept to confirm)
Priority 2: Urgent	Today
Priority 2: Urgent (w/in 6 hrs)	
Priority 2: Urgent-Unstable Pt	

### Method

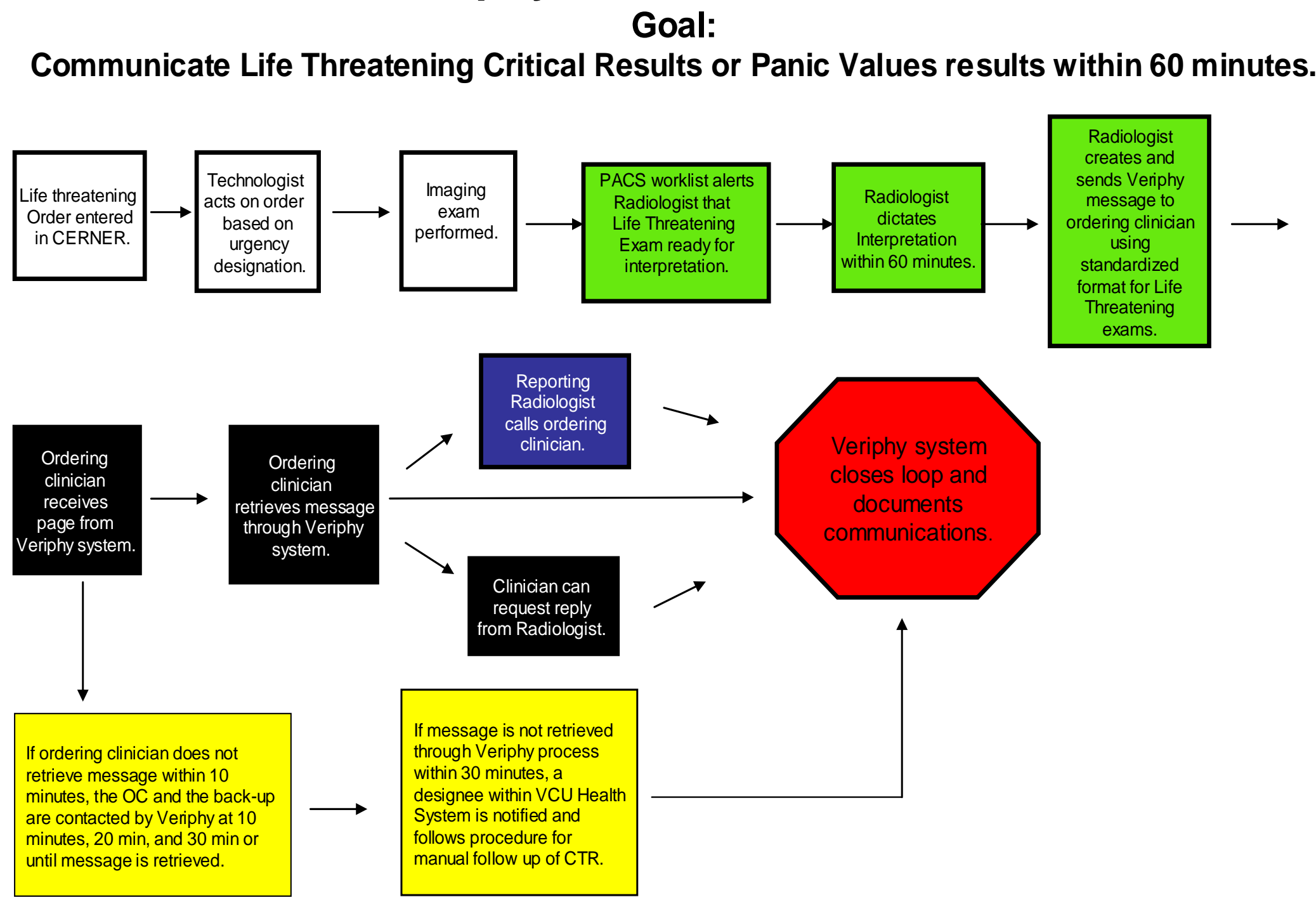
- New exam order and final result prioritization system developed.**
- Urgency of exam performance and report turnaround expectation determined by ordering clinician at time of order.
  - Life Threatening, Urgent but not Life Threatening, Routine, Discharge Priority, Morning Portable
- Four results categories available in the CTR system for radiologist communication of CTR's and unexpected findings.**
- Life Threatening, Significant, Potentially Concerning, ED Recall.
- Notification pathways created.**
- Ordering clinician profiles validated and education materials distributed. Ongoing follow up and education. Compliance monitoring.
- Daily auditing process established for reporting and documentation of Life Threatening CTR's.**
- Timeliness of Radiologist report of CTR.
  - Timeliness of OC retrieval of CTR.

### Results



- Order entry designation dictates urgency of notification response.
- Ordering clinician actively engaged in urgency of exam completion and result turnaround.
- Within the first month of implementation, compliance with 60 minute turn-around time for life threatening tests from went from 35% to 99%.
- Use of virtual pagers for medical teams to address issue of rotating residents continues to grow in demand adding to success of Veriphy system.
- Continued success in ED Recall at 100%

### Veriphy Method Flowchart



### Conclusions

- Implementing five exam priority choices in conjunction with the CTR system (Veriphy) created a completely closed loop system that:
- vastly improved efficiency of communicating CTR's to ordering clinicians.
  - automated documentation process for communications.
  - reduced turn-around time for reporting results.
  - improved ability to track and trend success.