Get Me to the CT Scanner On Time!

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(the authors have nothing to disclose)

Goal

Get 90% of all outpatients on the CT scanner within 15 minutes of their scheduled start time

Why Do We Care?!

MAJOR driver of both patient and physician dissatisfaction in recent survey was delays in getting outpatients scanned on time!!
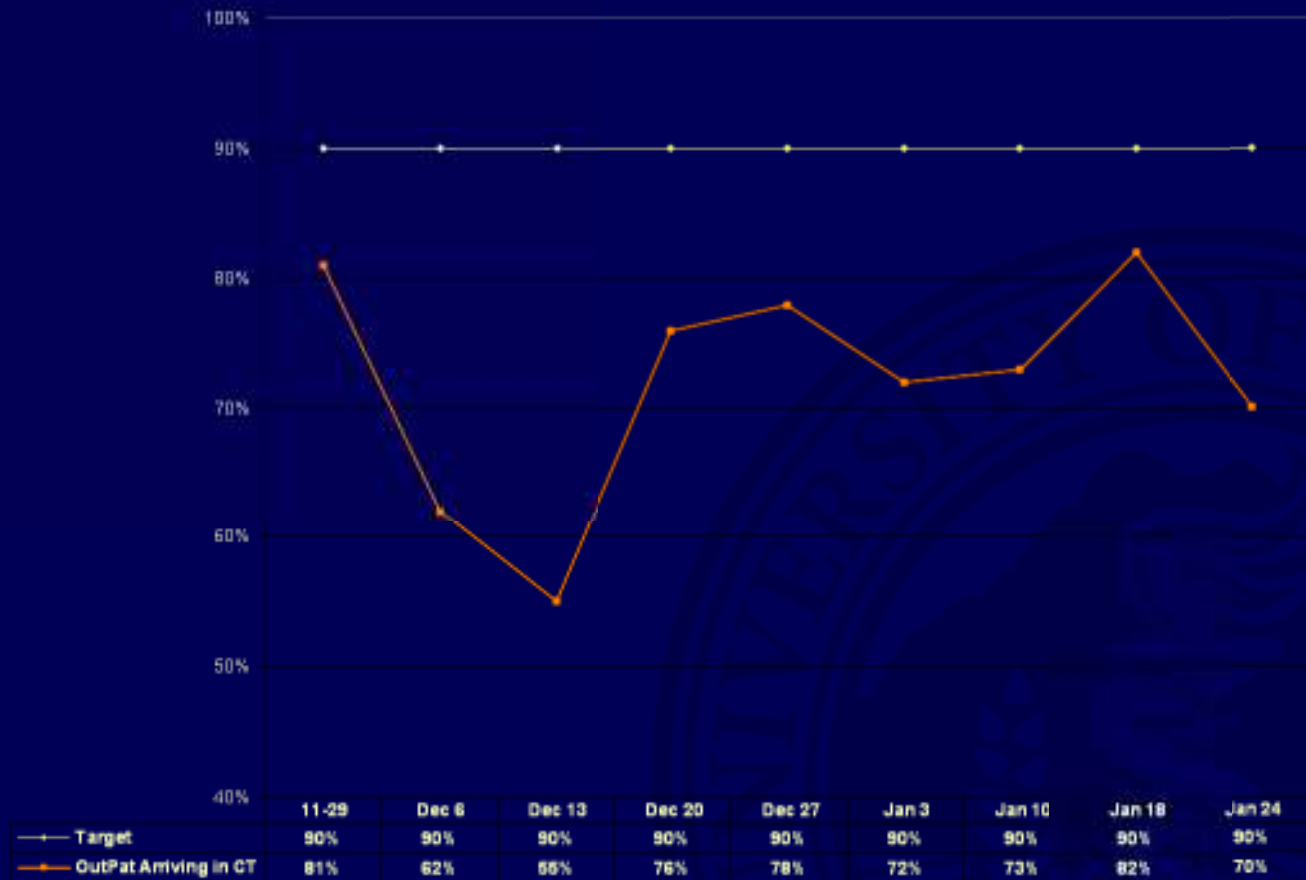
Therefore ……

Became a pivotal initiative in our 2010 Department Strategic Plan

Initial Data

CT Exams, Percentage Begun within 15 minutes of Scheduled Appointment
Weekly Averages

	11-29	Dec 6	Dec 13	Dec 20	Dec 27	Jan 3	Jan 10	Jan 18	Jan 24
Target	90%	90%	90%	90%	90%	90%	90%	90%	90%
OutPat Arriving in CT	81%	62%	55%	76%	78%	72%	73%	82%	70%

SO……….

We assembled a team!!!

Physician (co-lead)
CT/MRI Manager(co-lead)
CT Technologist
RN
Outpatient Scheduler
Clinic Scheduler
Information Services Specialist
Marketing Specialist

Fortunately…

Every member of the team was committed to achieving our goal!

How Did We Get Started?

Identified 9 barriers to success

(there are certainly more!)
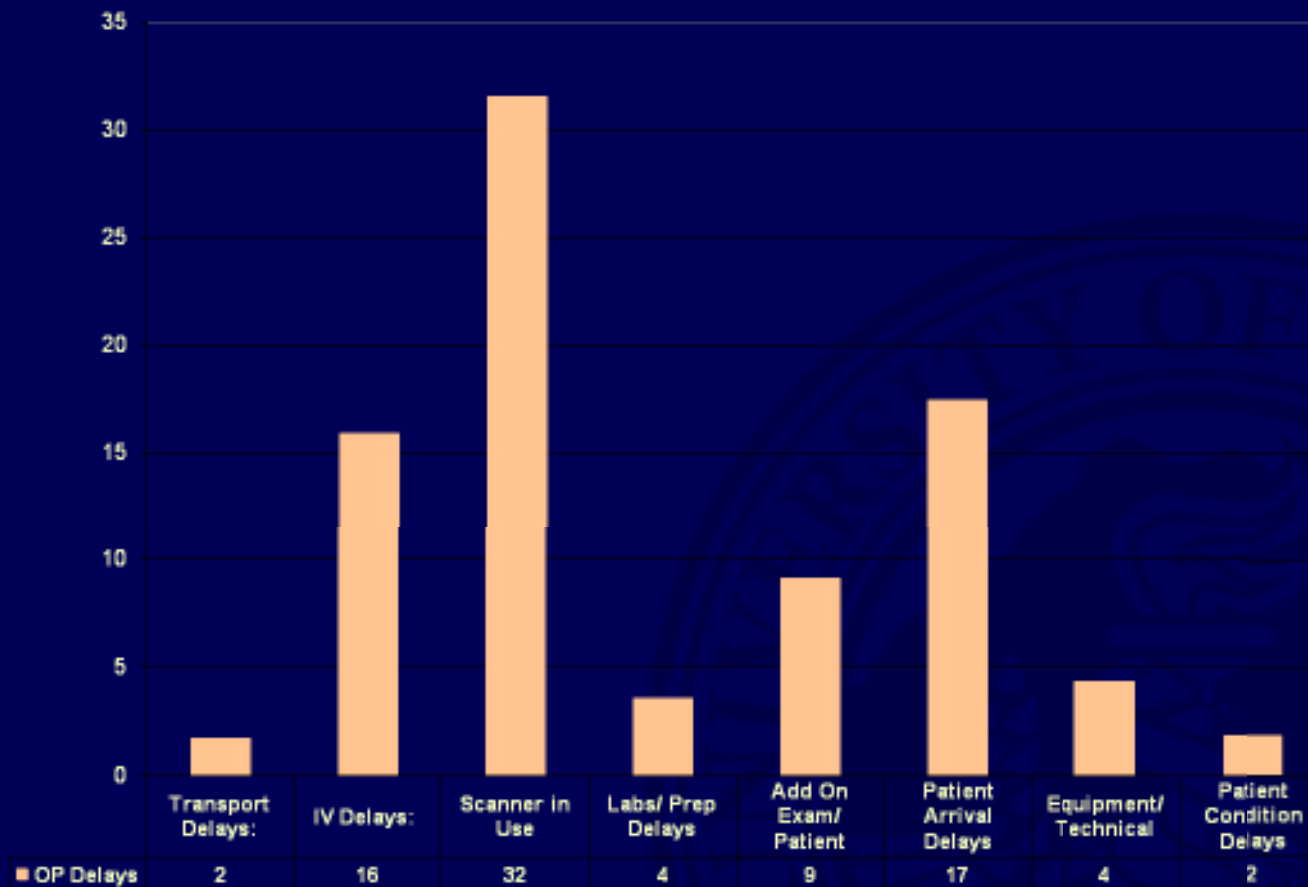
Barrier #1

We had NO DATA!!!!

SO……….

We started tracking why patients were not getting scanned on time

Reasons for Delays

Weekly Averages for Nov 29, 2010-Feb 14, 2011

	Transport Delays:	IV Delays:	Scanner in Use	Labs/ Prep Delays	Add On Exam/ Patient	Patient Arrival Delays	Equipment/ Technical	Patient Condition Delays
OP Delays	2	16	32	4	9	17	4	2

3 Huge Problems

Prior patient still occupying the scanner

ED patients get scanned on the outpatient scanners

Delays in getting IV's started

BUT there are LOTS of other issues!!!

Barrier #2

ED patients occupying the scanner

SO……….

The hospital is building a new ED
with it's own scanner!

(not just for us)

Barrier #3

Poor patient education and communication

↓

Patients show up late!!!

SO……….

This is a biggee!!!

Re-vamped our website to include more info

Instituted appointment reminders
(no we didn't have them!)
phone, e-mail, snail mail

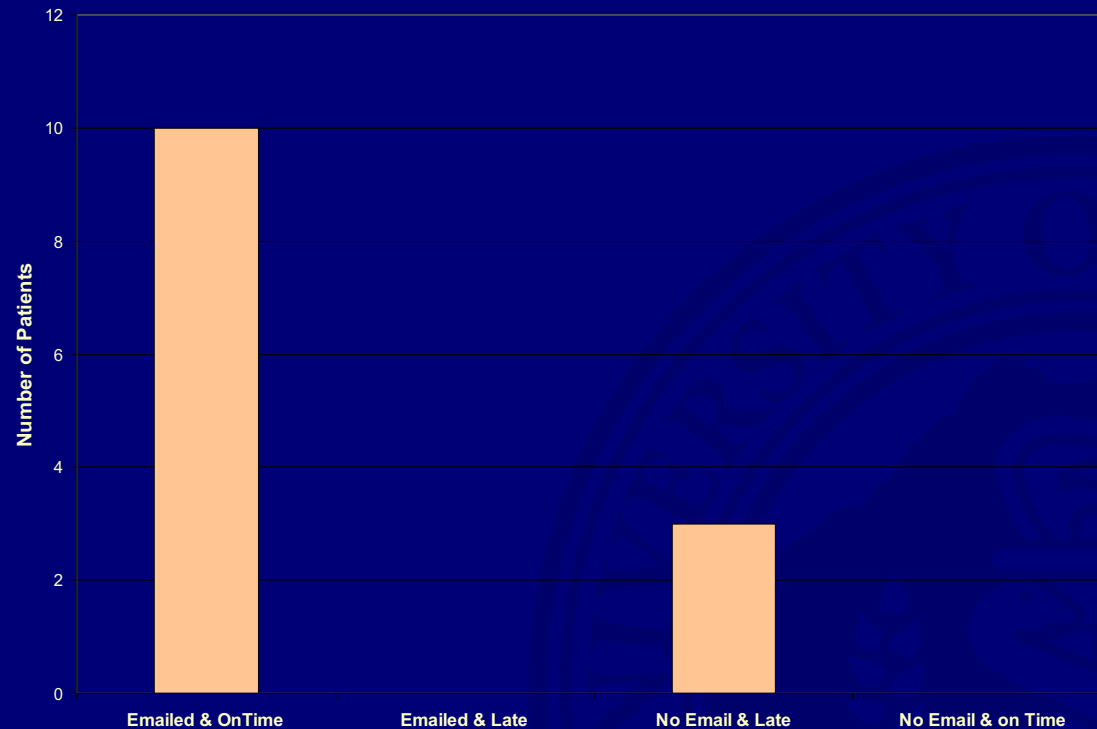New EHR with patient specific appointment link

Web Site capture

Barrier #4

Scheduling Problems

Undefined parameters for who gets done where and when

Manual scheduling allows messing with the time slots

Scheduling by non-radiology sites

SO……….

1. Defined strict parameters for specific scans

2. Instituted "mandatory" automated scheduling

3. Educated clinics who schedule
   - Included scripts for what they tell the patients
   - In-service to all clinic managers on all of this

Barrier #5

Scan protocol variability

Techs often unsure about what scan to do!

SO………

Standardized and limited the number of protocols

New EHR has built in protocol function with limited choices (not working yet)

Barrier #6

IV delays

Patient arrival too close to scan time

Difficult sticks

SO……….

Patient education and communication
(get here early!!!)

All techs can start IV's if nurses busy

Ultrasound machine for difficult sticks

Barrier #7

Oral prep delays

(everyone hates this part)

So……….

Went from 2 hour $\rightarrow$ 1 hour prep

(considering no oral contrast at all)

Barrier #8

Lab delays

(the dreaded BUN and Cr)

So…………

Education of clinics
(get labs ahead of time)

Proper use of Express Lab
(not for 72,000 tests just before CT)

I-stat labs by our nurses

Barrier #9

Old Scanner

Can't do off-line recons on 1 of 2 machines

Scanner sits empty while reconning

SO……….

Asking for new scanner

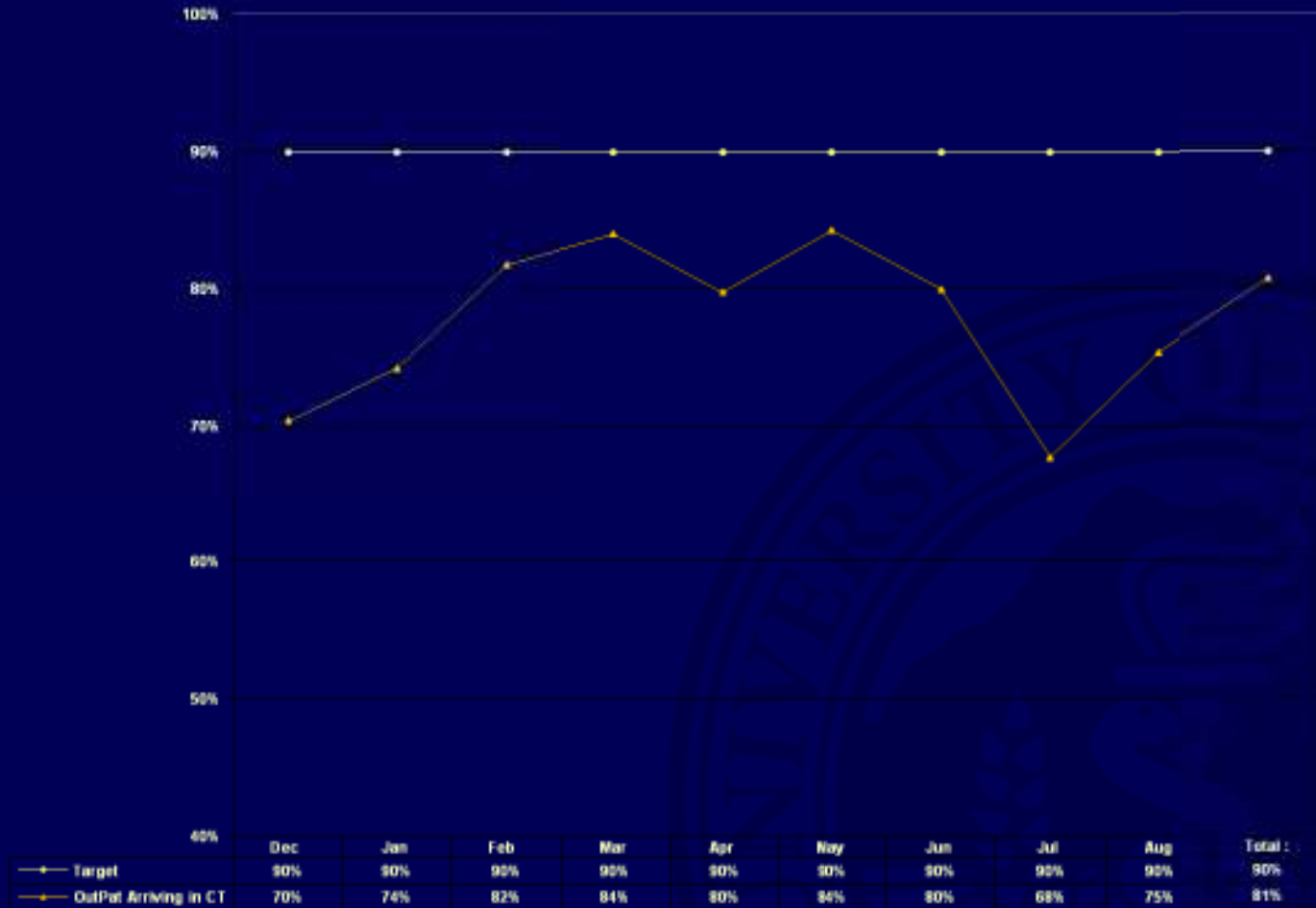(rejected 3 times so far)

What Have We Accomplished?

- Increase in percentage of patients started on time

- Improved communication with patients and referring clinics

- Increased visibility of Radiology via upgraded website

Follow-Up Data

CT Exams, Percentage Begun Within15 Minutes of Scheduled Time
Monthly Averages, Dec 2010 - Aug 2011

	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total:
Target	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
OutPat Arriving in CT	70%	74%	82%	84%	80%	84%	80%	68%	75%	81%

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Lessons Learned

The team is everything

Education and communication are everything

Some things you just can't control
(i.e. we have a long way to go)

Thanks to the Team!

- Loretta Hartten (IS)
- Juanita Lovejoy (Outpatient Scheduling)
- Kristin Nelson (Clinic Scheduling)
- Amanda Goodwin (CT Tech)
- Debbie Hardy (RN)
- Amy Divin (Dept. Marketing and Web Support)
- James Borgstede, MD (Vice Chair of Quality/Operations)
- Nancy Pritchard ARRT, MHA (Co-Lead)
- Peter Sachs, MD (Co-Lead)