



Clinical Safety & Effectiveness Cohort # 10

Communicating Laboratory Values to Night Float Physicians



Financial Disclosure

Theodore V. Arevalo, M.D., has no relevant financial relationships with commercial interests to disclose.

The Team

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- **Department of Medicine**
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Aim Statement

Decrease the number of pages to the Night Float Physician for laboratory results by 15% on General Medicine patients by June 10th, 2012.

Project Milestones

- Team Created January 2012
- AIM statement created February 2012
- Weekly Team Meetings February to present
- Background Data, Brainstorm Sessions,
Workflow and Fishbone Analyses Mar 02 – Apr 30
- Interventions Implemented June 06 - Present
- Data Analysis June 13, 2012
- CS&E Presentation June 15, 2012

Background

- The night time care of general medical patients at University Hospital utilizes a night float cross-cover system, utilizing a single physician as the primary coverage.
- The number of pages the physician receives in a 12 hour period (as well as the number of patients covered) is large, but the true numbers are unknown.

Background

- While doing night time cross-cover myself, on a small number of patients on non-teaching services, I noticed receiving a number of pages regarding the results of routine laboratory tests ordered by the daytime service, and that these calls were generally of little value.
- **Rationale:** Too many pages to nightfloat physician could impair meeting the needs of the patients at night.
- Literature search did not yield guidelines for this specific problem.

PLAN

Who? Dr. Arevalo, Nightfloat physician, Attendings, Unit nurse management

What? Describe problem and reach consensus that this should be addressed. Provided a guide for the process of improvement.

When? May

Where? UHS, 9th floor General Medicine and IPCU

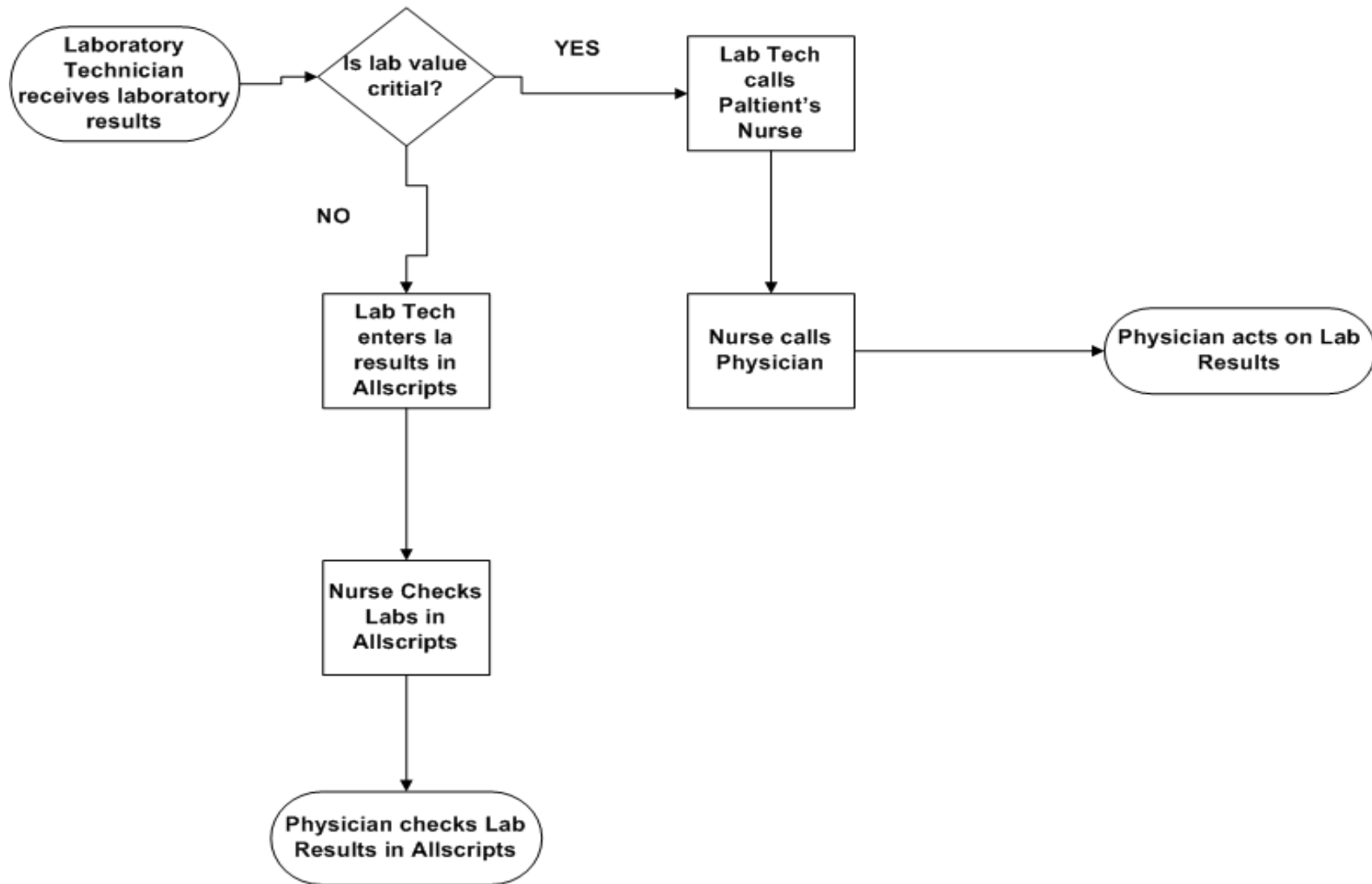
How? Face to face meetings and review of guidelines. Collect data, provide feedback and continue measurements to track changes.

Selected Process Analysis Tools

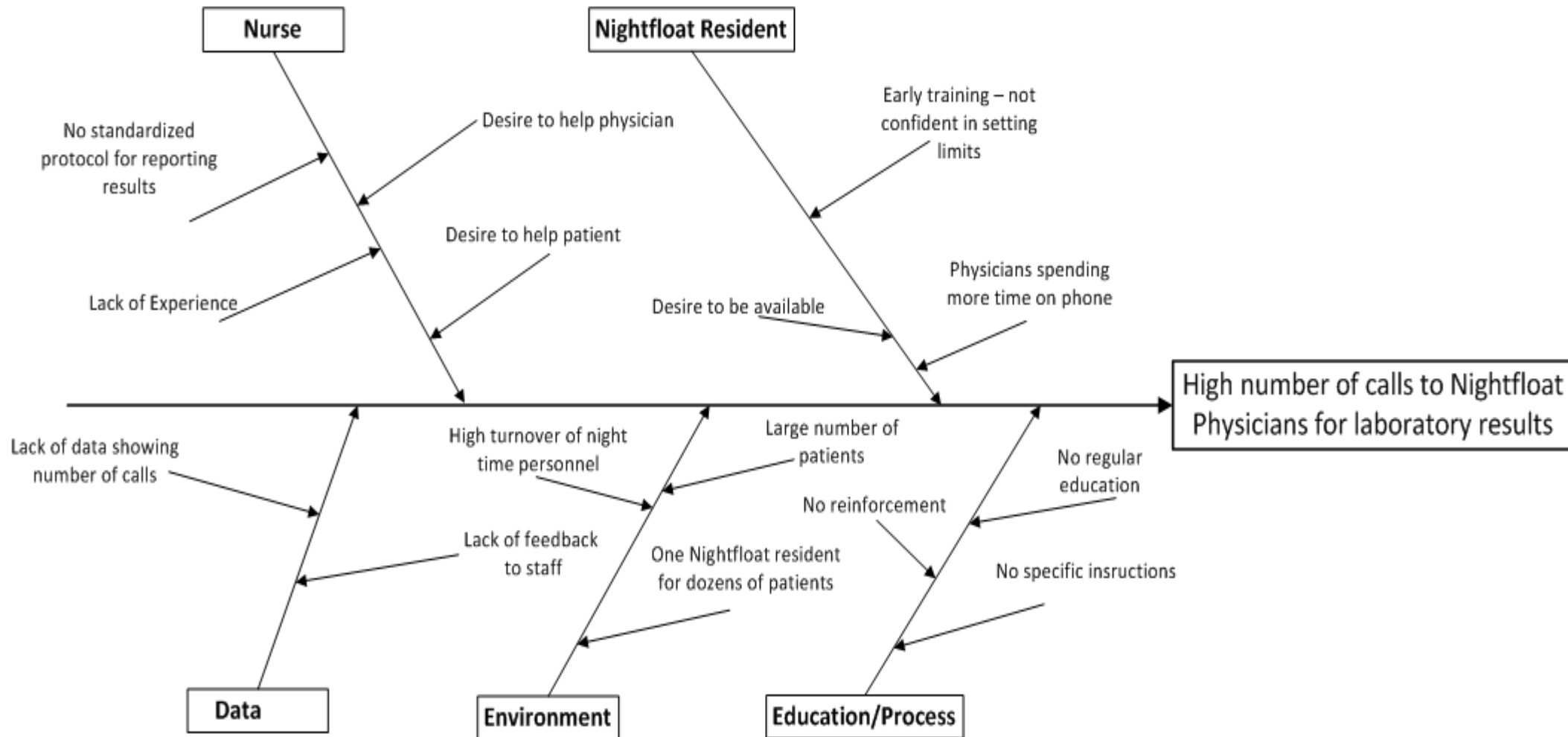
The Team utilized:

- Brainstorming
- Flowchart
- Fishbone

Flowchart – Pre- Intervention



Cause and Effect Diagram



What Changes Can We Make That Will Result in an Improvement?

The changes consist of education to the teams ordering routine tests, the night float physician, and the nurses on night shift.

The education consisted of :

- Handouts outlining the changes to all involved
- Direct discussion between nursing management and bedside nurses, attendings and residents and directly to the nightfloat physician.

DO - (Guideline for nurses)

- 1. There are no changes in the lab reporting of critical laboratory results***
- 2. No restrictions have been placed on paging the night float intern regarding laboratory results.***
- 3. It is not necessary to page the night float physician when non-critical laboratory results become available (unless specified by the night float physician, or serial labs for treatment, like for DKA)***
- 4. For non-critical results, the Laboratory asks you to consider “is the information compelling enough for you to wake a physician in the middle of the night?”***

DO- (Guidelines for the medical teams and night float)

- 1. Checkout procedures: Medicine teams will check out to the night float physician specific details of the type of routine lab ordered and the time they are to be collected , on each patient.***
- 2. The night float physician will use the Flag feature in Sunrise/Allscripts to be aware of when new results are available.***

How Will We Know That a Change is an Improvement?

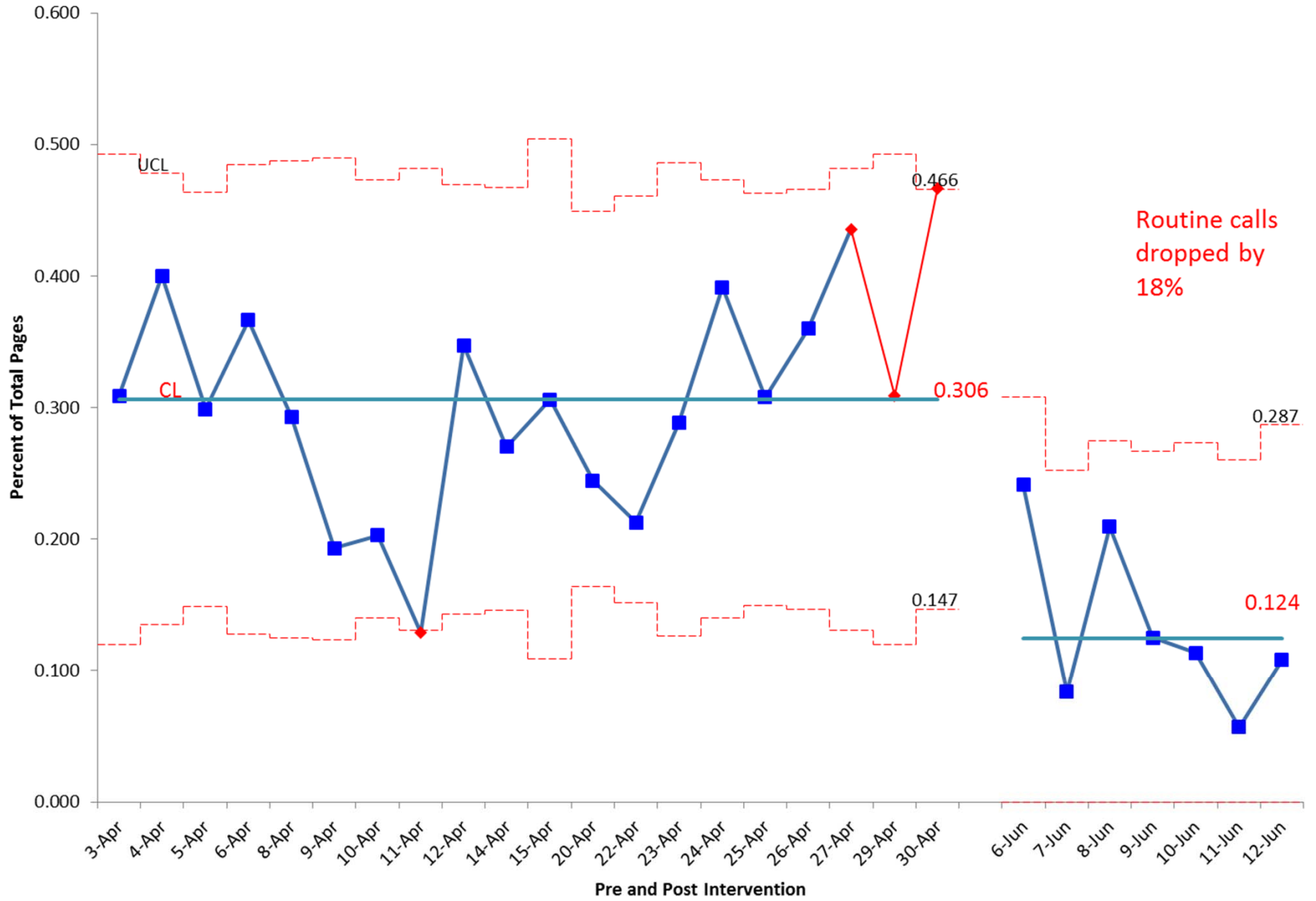
- Less interruptions for the nightfloat physician.
- The nightfloat physician will report more time spent on necessary actions related to better patient care.

Check

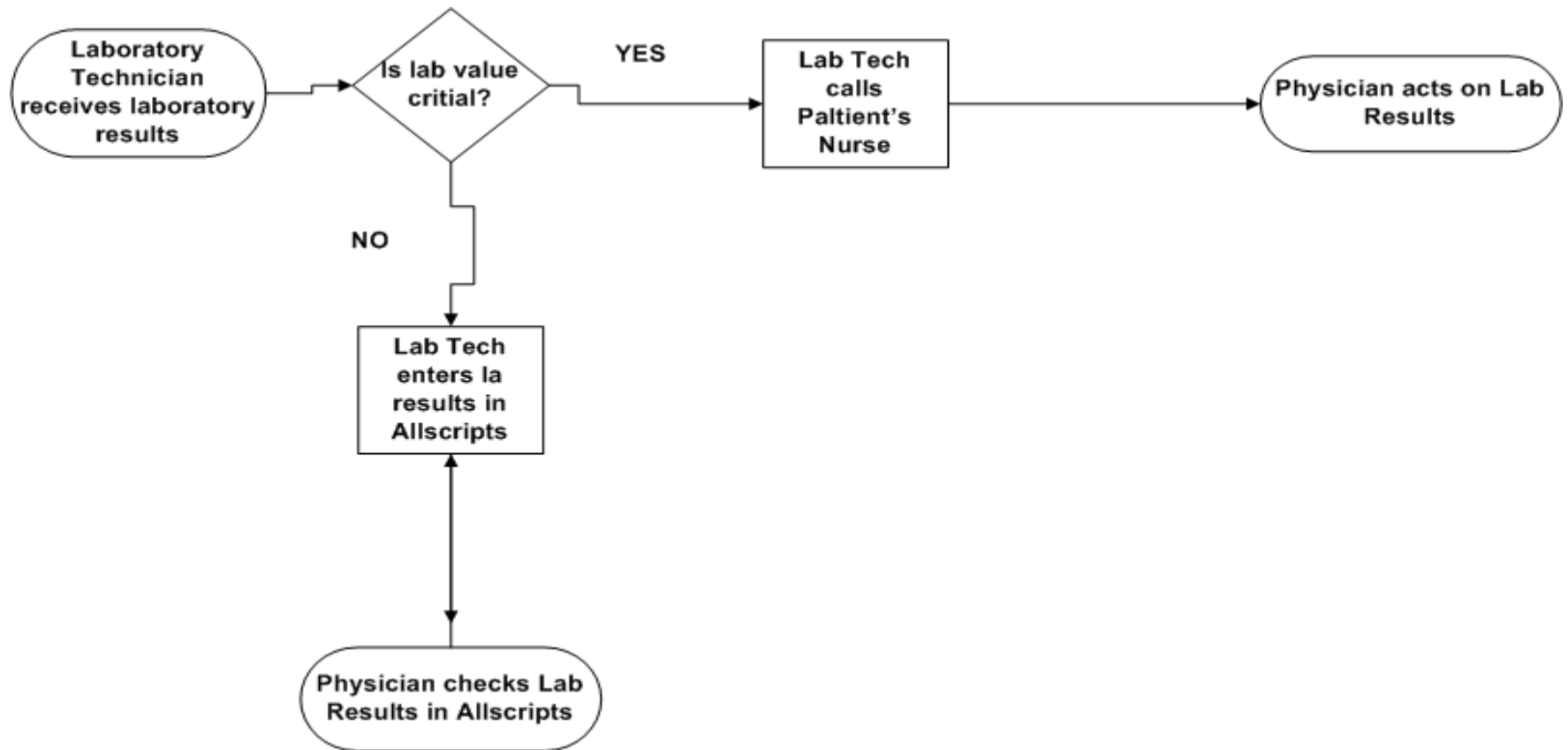
Measures:

- The night float physician will tally the total number of pages they receive each night.
- This physician will also note the number of pages received related to routine laboratory tests.
- These measures will be taken pre and post intervention.

Routine Lab Pages as Percent of Total Pages



Flowchart – Post- Intervention



ACT To Keep Gains

- Continue use of guidelines
- Continue measures
- Education at regular intervals
- Continue feedback from the night float intern, medicine teams, and nurses.

Return on Investment

Costs

This initiative is an example of Low Hanging Fruit.

- Minimal costs related to time spent developing guidelines
- No added staff needed
- No major change in work flow except to REMOVE unnecessary steps there only because of “tradition”
- No expensive data gathering methods used. Tally sheets sufficient to capture data.
- Training conducted during regularly held meetings

Savings

- Nursing relieved of repetitive, routine task
- Night float physician more available for critical patient issues.
- Night float physician’s time not interrupted by unnecessary calls—PRICELESS!

Conclusion/What's Next

- **Sustainment** : Make guideline part of Resident and Nursing orientation program.
- Increased patient satisfaction , enhancing reputation of UHS.
- Increased resident satisfaction and productivity.
- Potential applications for day time work and other medical services provided in the hospital.

Thank you!



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