Clinical Safety & Effectiveness Cohort # 15

Establish a Spirometry Competency Program for the COPD Patient Population at the UT Primary Care Clinic

Disclaimer

Lynn Young and Monica Pereida do not have any conflict of interest to disclose with our CS&E project.

The Team

- Division
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  - April Bernal, MA
  - Louis Oliva, MA

Facilitator: Hope Nora, PhD

- Sponsor Department:
  - Dr. Sara Pastoor, Director, Primary Care Center

AIM Statement

The aim of this project is to improve the competency of the clinical support staff as defined by correctly demonstrating 90% of the 10 steps of spirometry testing for all patients tested by January 15, 2015. Since currently there is no established competency testing protocol, the baseline for percent of patients correctly tested is 0%.

The process begins when clinical support staff are trained to complete spirometry testing and ends when they are able to administer the exam to the patient competently. This is important to improve because it effects the quality and efficiency of care that our patients are receiving.

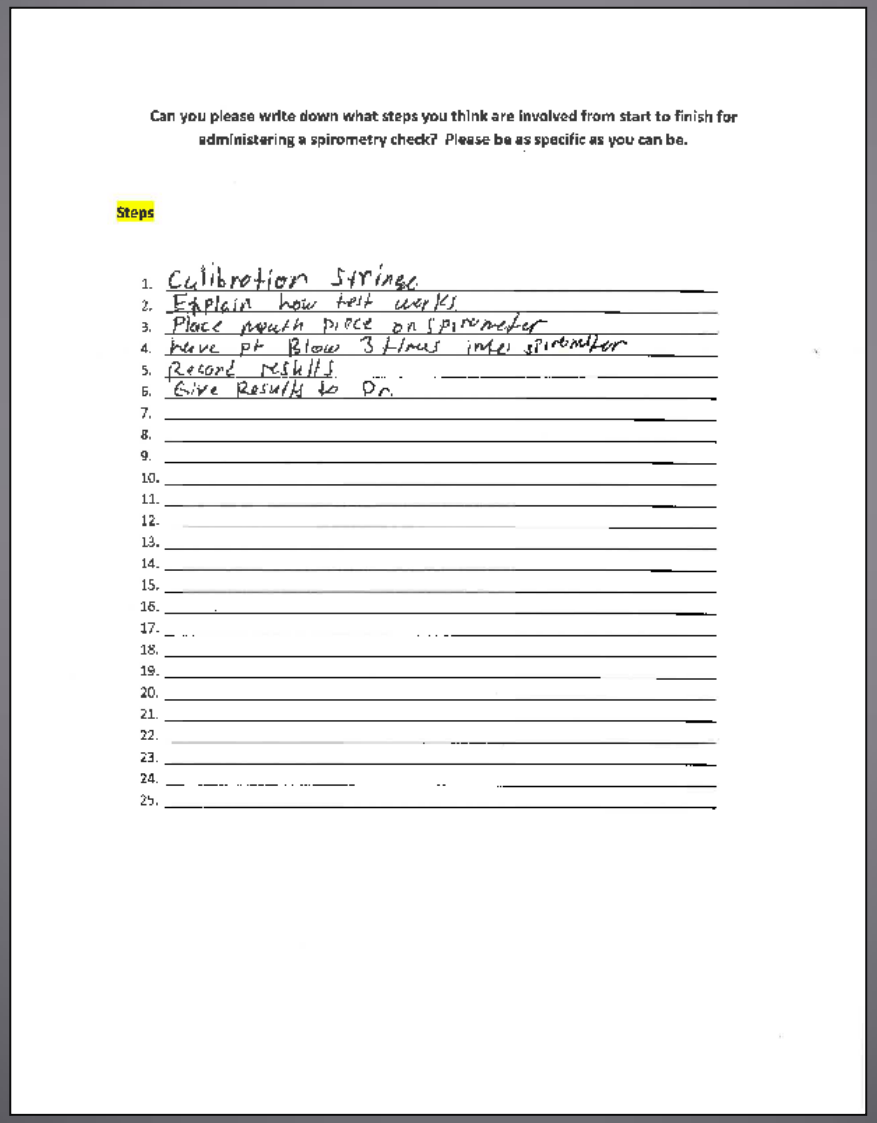
Project Milestones

• Team Created	August 2014
• AIM statement created	September 2014
• Weekly Team Meetings	Sept – Nov 2014
• Background Data, Brainstorm Sessions, Workflow and Fishbone Analyses	Sept – Nov 2014
• Interventions Implemented	08 Oct 2014 15 Oct 2014 22 Oct 2014 05 Nov 2014
• Data Analysis	Sept - current
• CS&E Presentation	23 January 2015

Background

- Staff have not had a competency verification process in place for spirometry within the Primary Care Center
- Lack of formalized training/competency programs in ambulatory settings
- This is important to address to make sure that we are delivering safe quality healthcare to our patients

Pre-analysis Tool



Can you please write down what steps you think are involved from start to finish for administering a spirometry check? *Please be as specific as you can be.*

Steps

1. Calibration Syringe
2. Explain how test works
3. Place mouth piece on spirometer
4. Have pt Blow 3 times into spirometer
5. Record results
6. Give Results to Dr.
7.
8.
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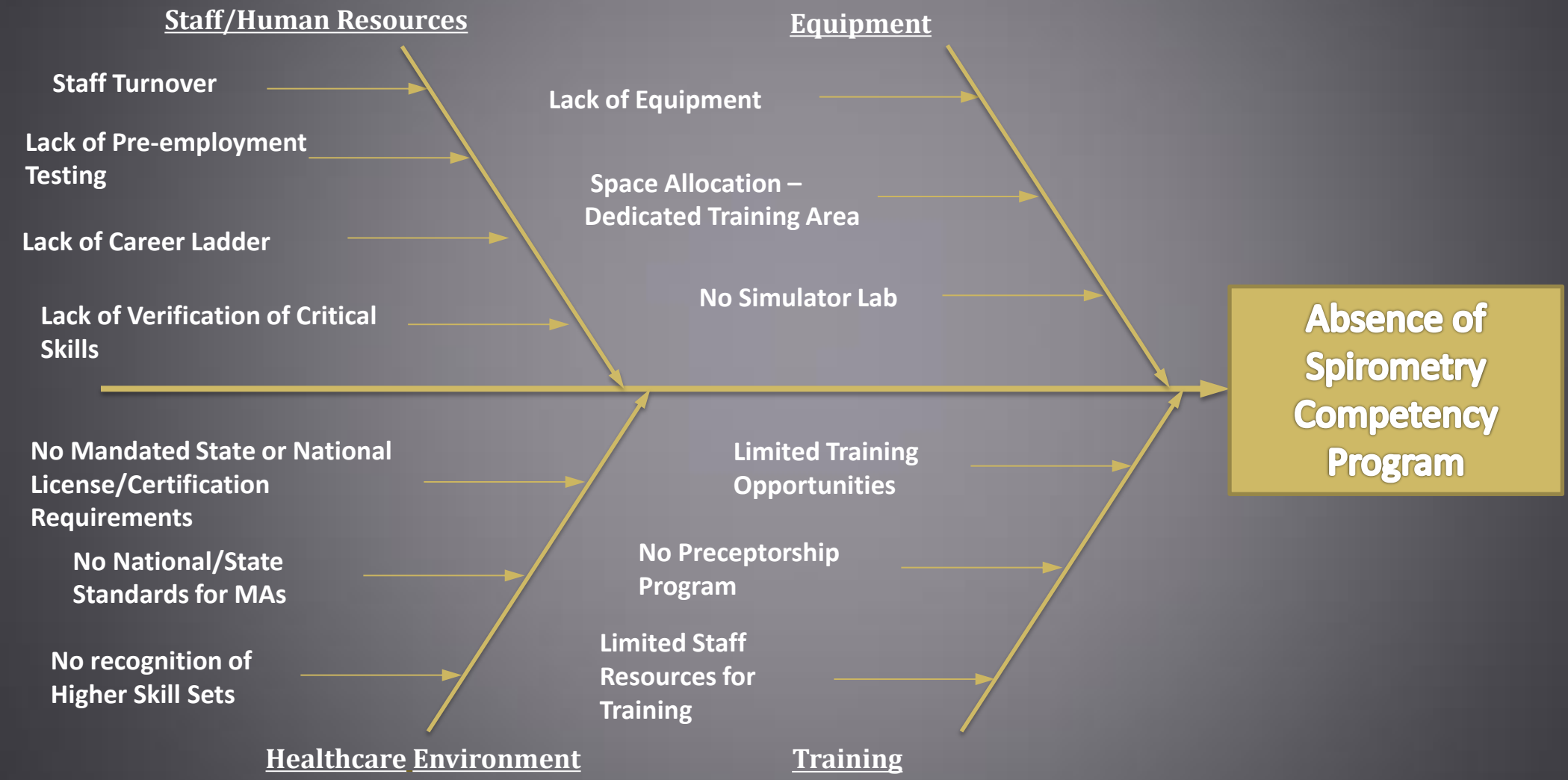
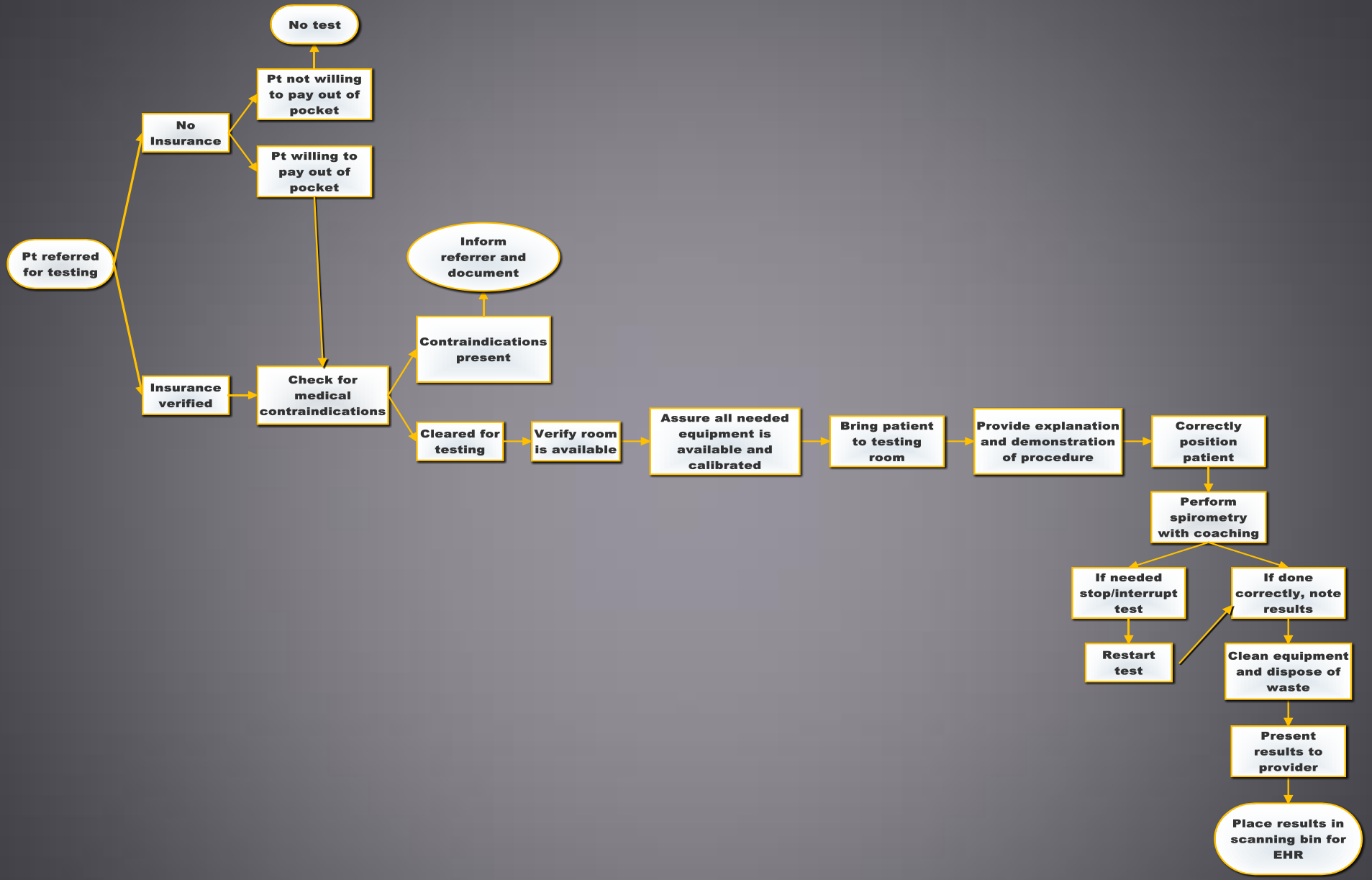
Process Analysis Tool




No test
Pt not willing to pay out of pocket
No Insurance
Pt willing to pay out of pocket
Pt referred for testing
Inform referrer and document
Contraindications present
Insurance verified
Check for medical contraindications
Cleared for testing
Verify room is available
Assure all needed equipment is available and calibrated
Bring patient to testing room
Provide explanation and demonstration of procedure
Correctly position patient
Perform spirometry with coaching
If needed stop/interrupt test
If done correctly, note results
Restart test
Clean equipment and dispose of waste
Present results to provider
Place results in scanning bin for EHR

Pre-intervention Data

- There is currently no Spirometry Testing Competency in place. Therefore we have do not have any pre-intervention data.

PLAN: Intervention

Create a Spirometry Competency Check-off Process

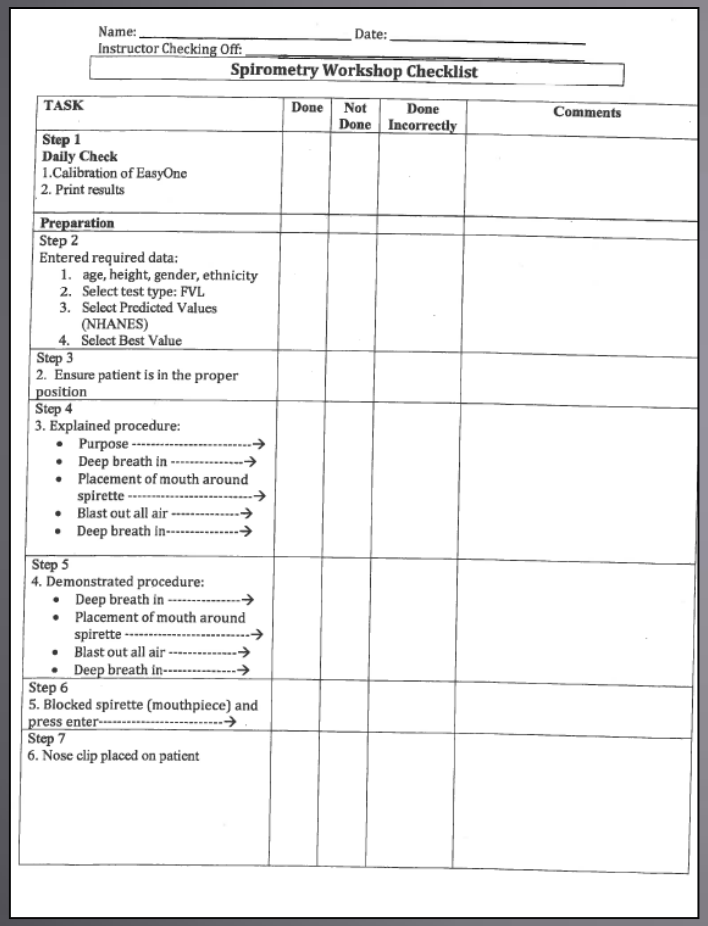
- Introduction of CS & E Project to Staff
- Spirometry Training Started with an introduction to the process and testing
- Staff Training Started – Learning the equipment & how to calibrate
- Staff learned the correct process of administering a spirometry test
- Staff Performed Spirometry Test and checked off with each other
- Staff check-off when administering test to patient

DO: Implementing the Change

Training

- 08 Oct 2014 – Introduction to CS&E Project
- 15 Oct 2014 – Staff training started - equipment
- 22 Oct 2014 – Staff trained on the steps of administering spirometry
- 05 Nov 2014 – Staff Checked off

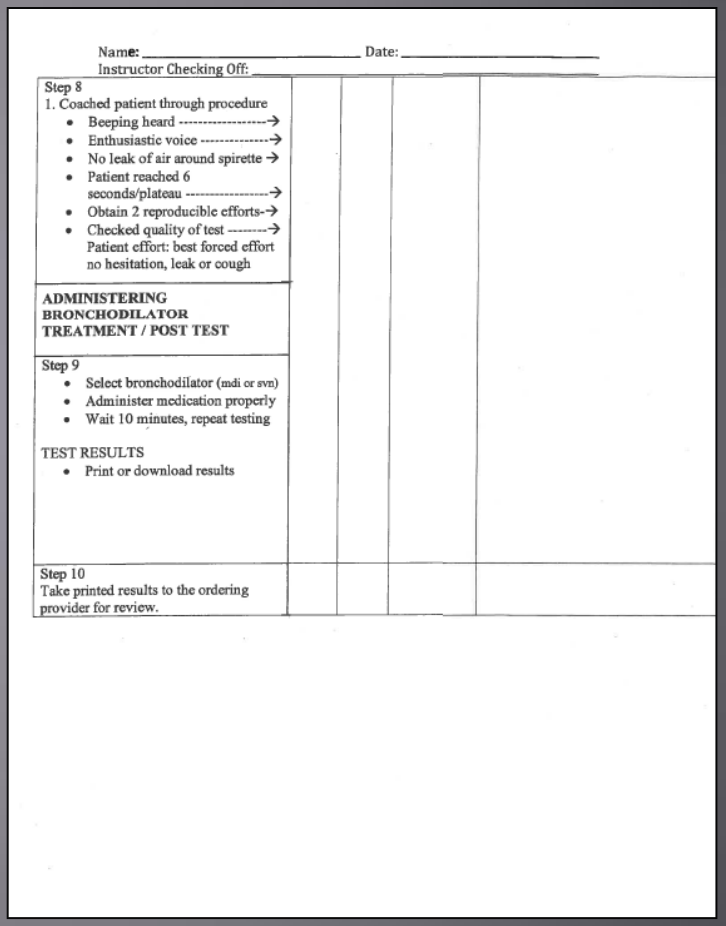
Spirometry Workshop Check-Off



Name: _____ Date: _____
Instructor Checking Off: _____

Spirometry Workshop Checklist

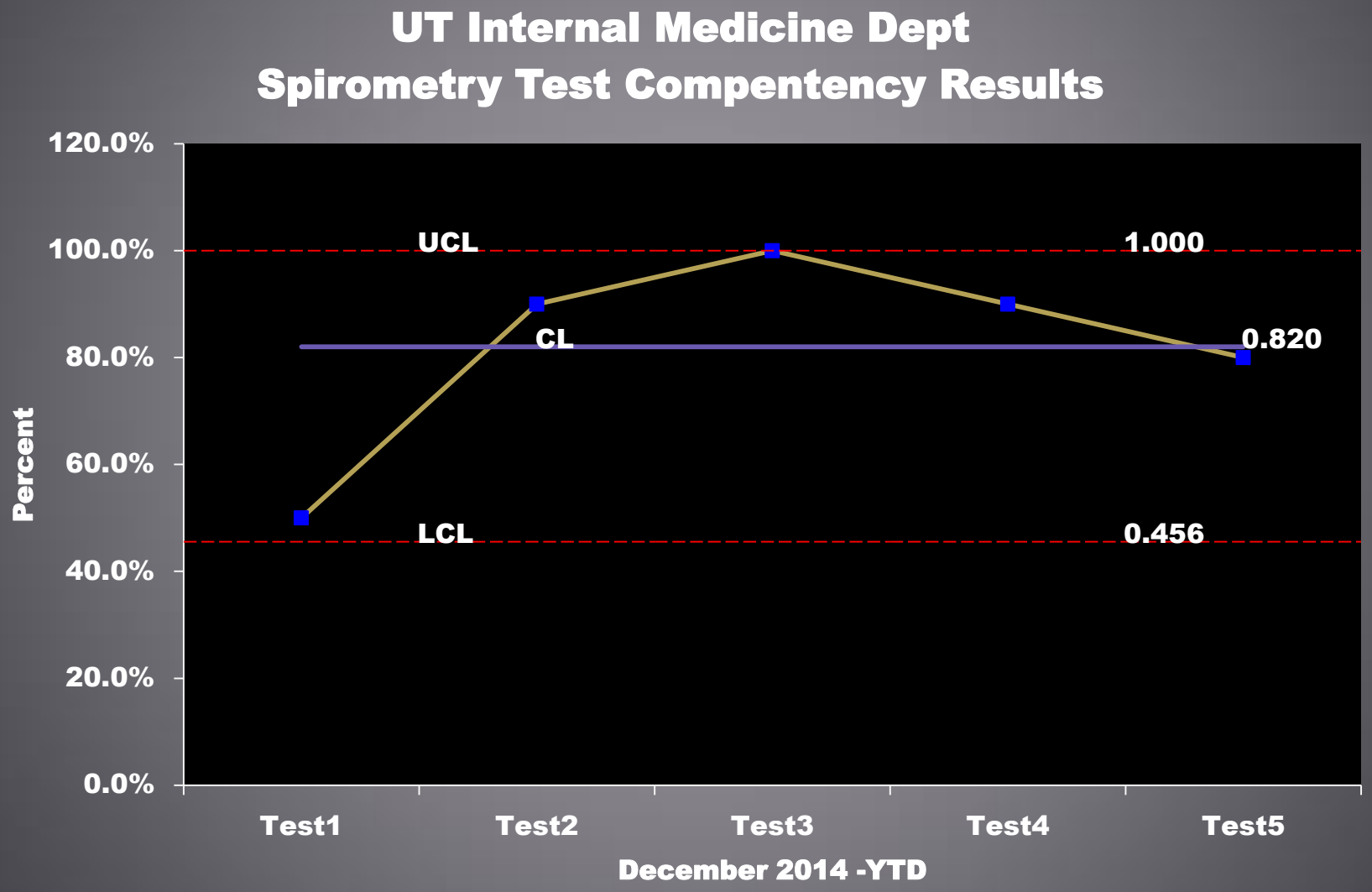
TASK	Done	Not Done	Done Incorrectly	Comments
Step 1 **Daily Check** 1.Calibration of EasyOne 2. Print results				
Preparation				
Step 2 Entered required data: 1. age, height, gender, ethnicity 2. Select test type: FVL 3. Select Predicted Values (NHANES) 4. Select Best Value				
Step 3 2. Ensure patient is in the proper position				
Step 4 3. Explained procedure: • Purpose ----------→ • Deep breath in ----------→ • Placement of mouth around spirette ----------→ • Blast out all air ----------→ • Deep breath in----------→				
Step 5 4. Demonstrated procedure: • Deep breath in ----------→ • Placement of mouth around spirette ----------→ • Blast out all air ----------→ • Deep breath in----------→				
Step 6 5. Blocked spirette (mouthpiece) and press enter----------→				
Step 7 6. Nose clip placed on patient				



Name: _____ Date: _____
Instructor Checking Off: _____

Step 8 1. Coached patient through procedure • Beeping heard ----------→ • Enthusiastic voice ----------→ • No leak of air around spirette → • Patient reached 6 seconds/plateau ----------→ • Obtain 2 reproducible efforts-→ • Checked quality of test ---------→ Patient effort: best forced effort no hesitation, leak or cough				
ADMINISTERING BRONCHODILATOR TREATMENT / POST TEST				
Step 9 • Select bronchodilator (mdi or svn) • Administer medication properly • Wait 10 minutes, repeat testing TEST RESULTS • Print or download results				
Step 10 Take printed results to the ordering provider for review.				

Results/Impact



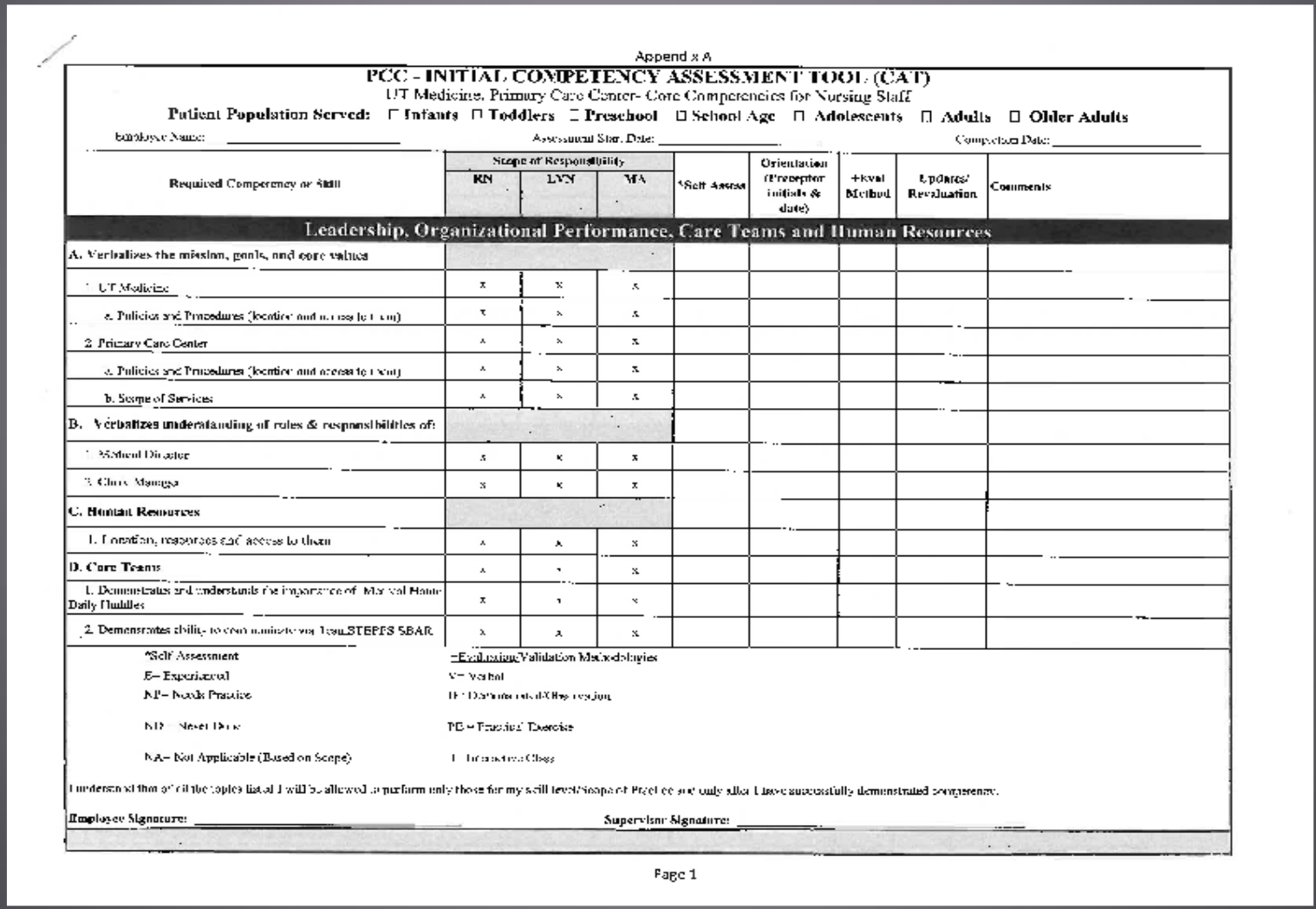
ACT: Sustaining the Results

- Spirometry Training will be added to Clinical Employee's Competency Assessment Tool (Initial competency check-off sheet)

- Once everyone has been checked off initially then we will change and do a random sample of 3 support staff each month and check them off and add that data to another SPC Chart

- Annual Validation Tool will be used to review and check off skill competency

Competency Assessment Tool



Append x A

PCC - INITIAL COMPETENCY ASSESSMENT TOOL (CAT)

UT Medicine, Primary Care Center- Core Competencies for Nursing Staff

Patient Population Served: ☐ Infants ☐ Toddlers ☐ Preschool ☐ School Age ☐ Adolescents ☐ Adults ☐ Older Adults

Employee Name: _____ Assessment Start Date: _____ Completion Date: _____

Required Competency or Skill	Scope of Responsibility			*Self Assess	Orientation (Preceptor Initials & date)	+Eval Method	Updates/ Revaluation	Comments
	RN	LVN	MA					
Leadership, Organizational Performance, Care Teams and Human Resources								
A. Verbalizes the mission, goals, and core values								
1. UT Medicine	X	X	X					
a. Policies and Procedures (location and access to them)	X	X	X					
2. Primary Care Center	X	X	X					
a. Policies and Procedures (location and access to them)	X	X	X					
b. Scope of Services	X	X	X					
B. Verbalizes understanding of rules & responsibilities of:								
1. Medical Director	X	X	X					
2. Clinic Manager	X	X	X					
C. Human Resources								
1. Location, resources and access to them	X	X	X					
D. Care Teams	X	X	X					
1. Demonstrates and understands the importance of Medical Home Daily Huddles	X	X	X					
2. Demonstrates ability to communicate using TeamSTEPPS SBAR	X	X	X					

*Self Assessment — +Evaluation/Validation Methodologies

E= Experienced — V= Verbal

NP= Needs Practice — D= Demonstration/Observation

NT= Never Done — PE= Practical Exercise

NA= Not Applicable (Based on Scope) — C= Competency Class

I understand that of all the tasks listed I will be allowed to perform only those for my skill level/Scope of Practice and only after I have successfully demonstrated competence.

Employee Signature: _____ Supervisor Signature: _____

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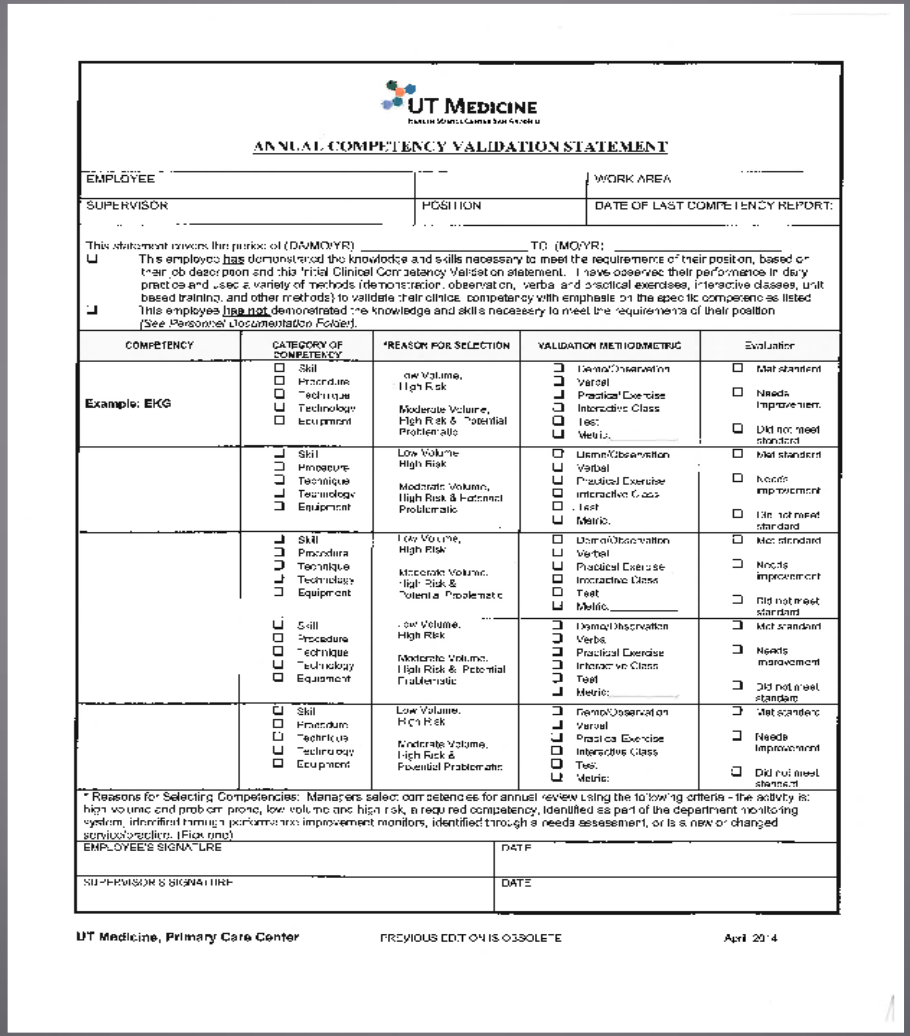
Annual Competency Form



UT MEDICINE

ANNUAL COMPETENCY VALIDATION STATEMENT

EMPLOYEE | WORK AREA

SUPERVISOR | POSITION | DATE OF LAST COMPETENCY REPORT:

This statement covers the period of (DA/MO/YR) _____ TO (MO/YR): _____

☐ This employee has demonstrated the knowledge and skills necessary to meet the requirements of their position, based on their job description and this Initial Clinical Competency Validation Statement. I have observed their performance in daily practice and used a variety of methods (demonstration, observation, verbal and practical exercises, interactive classes, unit based training, and other methods) to validate their clinical competency with emphasis on the specific competencies listed

☐ This employee has not demonstrated the knowledge and skills necessary to meet the requirements of their position *(See Personnel Documentation Folder).*

COMPETENCY	CATEGORY OF COMPETENCY	*REASON FOR SELECTION	VALIDATION METHOD/METRIC	Evaluation
Example: EKG	☐ Skill ☐ Procedure ☐ Technique ☐ Technology ☐ Equipment	Low Volume, High Risk Moderate Volume, High Risk & Potential Problematic	☐ Demo/Observation ☐ Verbal ☐ Practical Exercise ☐ Interactive Class ☐ Test: ☐ Metric:	☐ Met standard ☐ Needs improvement ☐ Did not meet standard
	☐ Skill ☐ Procedure ☐ Technique ☐ Technology ☐ Equipment	Low Volume, High Risk Moderate Volume, High Risk & Potential Problematic	☐ Demo/Observation ☐ Verbal ☐ Practical Exercise ☐ Interactive Class ☐ Test ☐ Metric:	☐ Met standard ☐ Needs improvement ☐ Did not meet standard
	☐ Skill ☐ Procedure ☐ Technique ☐ Technology ☐ Equipment	Low Volume, High Risk Moderate Volume, High Risk & Potential Problematic	☐ Demo/Observation ☐ Verbal ☐ Practical Exercise ☐ Interactive Class ☐ Test ☐ Metric:	☐ Met standard ☐ Needs improvement ☐ Did not meet standard
	☐ Skill ☐ Procedure ☐ Technique ☐ Technology ☐ Equipment	Low Volume, High Risk Moderate Volume, High Risk & Potential Problematic	☐ Demo/Observation ☐ Verbal ☐ Practical Exercise ☐ Interactive Class ☐ Test ☐ Metric:	☐ Met standard ☐ Needs improvement ☐ Did not meet standard
	☐ Skill ☐ Procedure ☐ Technique ☐ Technology ☐ Equipment	Low Volume, High Risk Moderate Volume, High Risk & Potential Problematic	☐ Demo/Observation ☐ Verbal ☐ Practical Exercise ☐ Interactive Class ☐ Test: ☐ Metric:	☐ Met standard ☐ Needs improvement ☐ Did not meet standard

* Reasons for Selecting Competencies: Managers select competences for annual review using the following criteria - the activity is: high volume and problem prone, low volume and high risk, a required competency, identified as part of the department monitoring system, identified through performance improvement monitors, identified through a needs assessment, or is a new or changed service/practice. (Flow ring)

EMPLOYEE'S SIGNATURE | DATE

SUPERVISOR'S SIGNATURE | DATE

UT Medicine, Primary Care Center | PREVIOUS EDITION IS OBSOLETE | April 2014

Return on Investment

Reimbursement rate in current state over the last year:

- 273 of 493 patients have had spirometry (within the last 10 years)
- 273 x $64.00/per test = $17,472

Reimbursement rate in future state :

- If aim is achieved, an additional 47 patients will have spirometry
- 47 x $64.00/per test = $3,008 (over a 3-month period, which may be up to $12,032 over the first year) We will have to deduct the disposable cost of the spirettes and nose ***which is minimal.***

Conclusion/What's Next

Highlights of this project thus far: staff have gained knowledge of competency of administering spirometry and gained confidence

Future benefits of this project is to be able to use this process in checking off support staff on other competencies.

Barriers would be time and space

Thank you!

Educating for Quality Improvement & Patient Safety