

Clinical Safety & Effectiveness Cohort # 20

Central Access Time Saver (CATS)
project

The Team

- Division

Saloni Agarwal, MD	CS&E Participant
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Syed Shah, MD	Team Member
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- Sponsor Department:

Margarita Vasquez, M.D. – Associate Professor, Department of Neonatology

AIM Statement

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Project Milestones

- Team Created March 2017
- AIM statement created March 2017
- Weekly Team Meetings March 2017- present
- Background Data, Brainstorm Sessions, Workflow and Fishbone Analyses October 2016-March 2017
- Interventions implemented End of March 17-April 2017
- Data Analysis October 2016-May 2017
- CSE presentation June 2 2017

Background-What is central vascular access?

- Central vascular access is a common occurrence in the NICU

What the pre-intervention data showed...

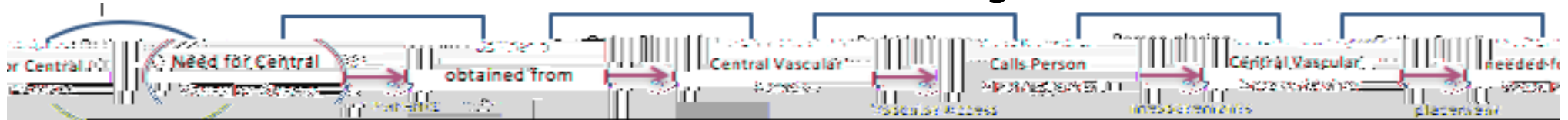
- Assessment of the data in the NICU from 2016, showed that the average time to obtain an X-ray after central vascular access was 30 minutes

Why is this a problem?

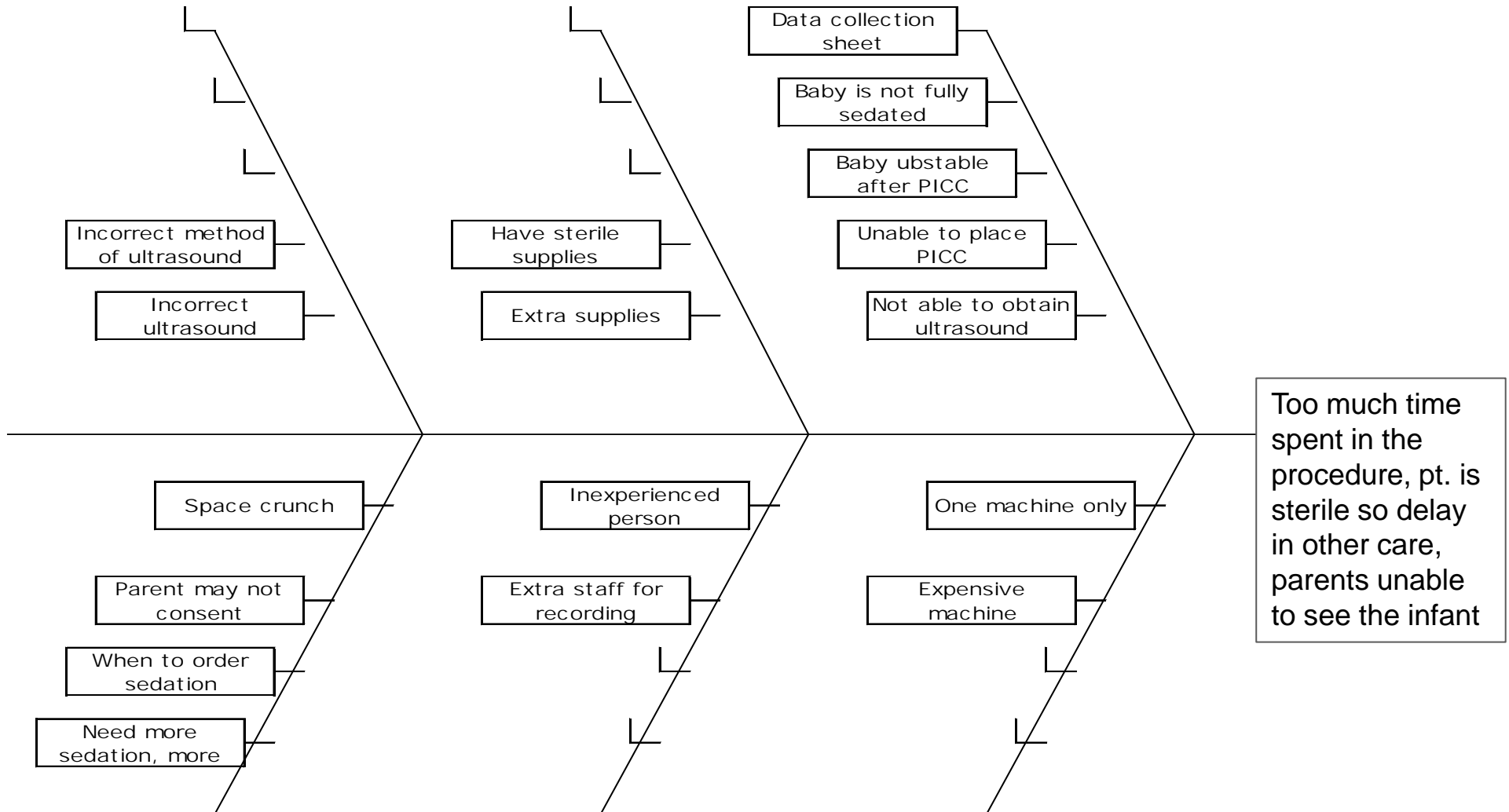
- Procedure completion is marked by confirmation of central line placement on an X-ray
- Delay in obtaining an X-ray leads to a delay in the completion of procedure

-Parents are hav 0B(B477 p)10.6356

Plan : Process analysis



Plan: Fish bone



Plan: Pre-intervention Data Collection



Pre-intervention Data

Do : Implementing the Change

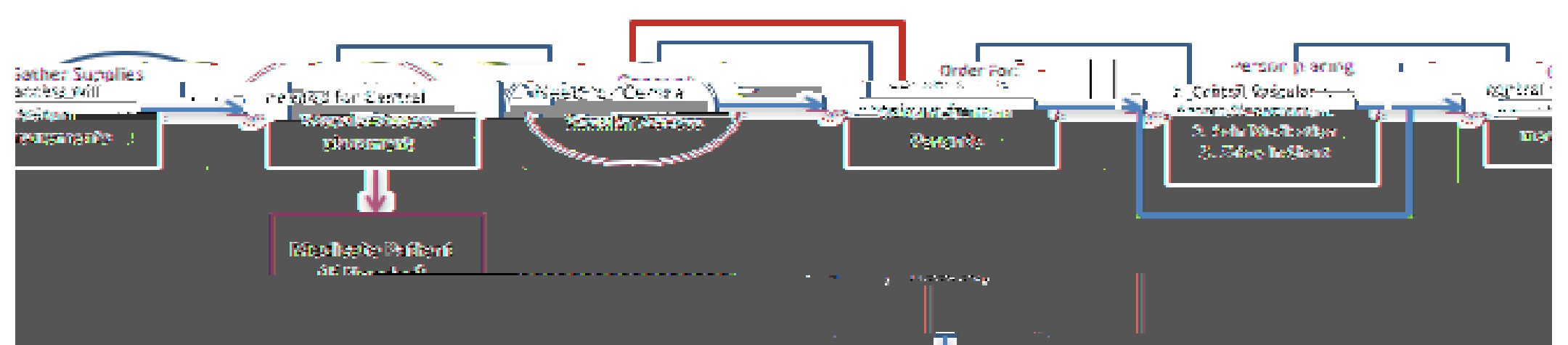
3 phases:

1) Collect data and develop protocol: October 2016- March 2017

Lessons learnt:

- Missing/incomplete orders
- Call to X-ray dept. answered by a secretary who pages out the call(No direct contact with the available X-

Do: Intervention

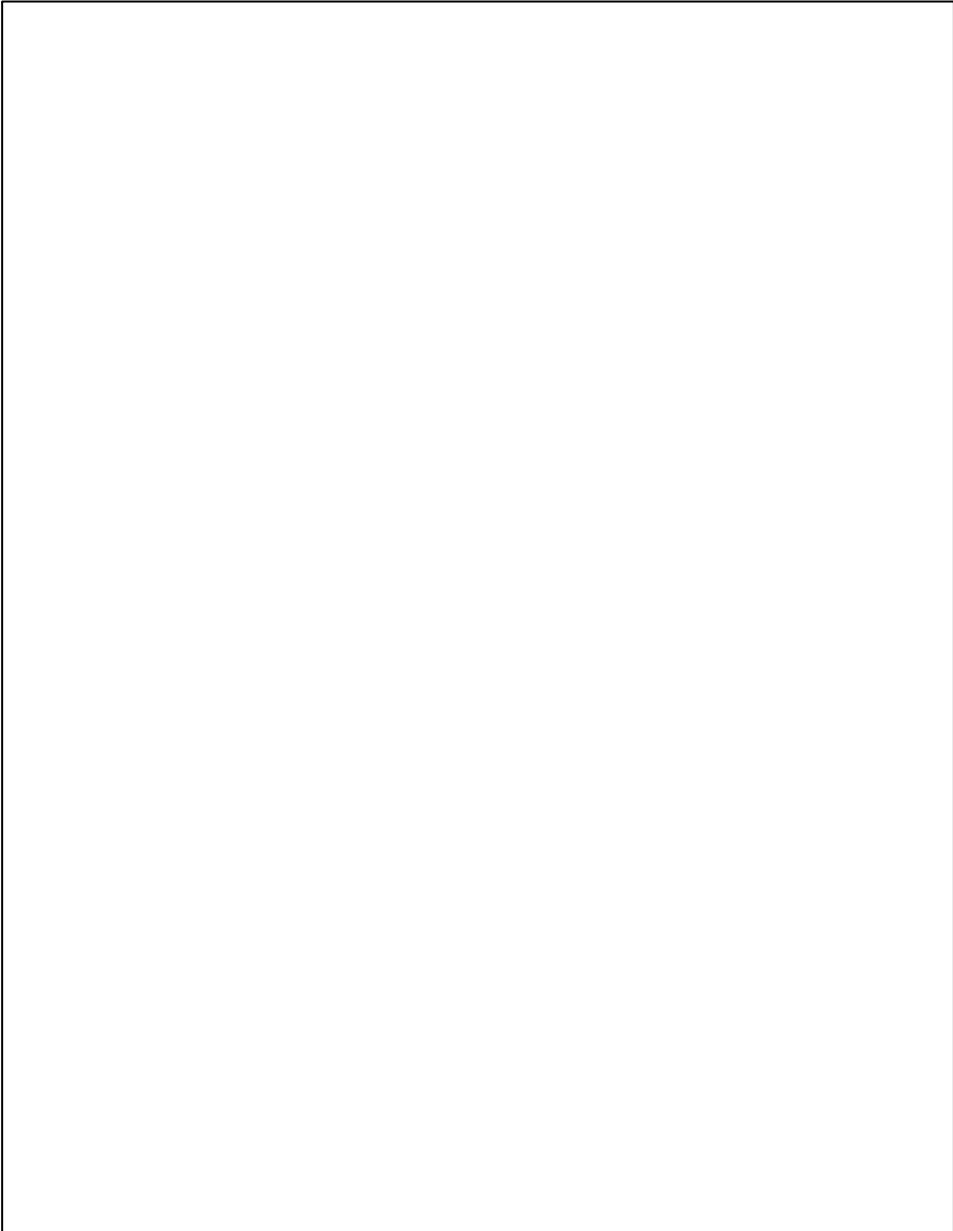


Do: Protocol education- Checklist

Important highlights:

- Ensure placement of orders in the patient chart
- Call X-ray techs ahead of time via a DIRECT contact number
- Request an X-ray within 30 minutes of start of procedure

Do: Protocol education- Data collection sheet



Central Access Time Saver (CATS) Protocol

Neonate needs a central line



Ensure checklist is completed



Request X-ray tech to arrive in 30 min after START of procedure



Ensure recording of information on the data collection sheet

CHECK: Results/Impact

Dist

Neither Baseline nor Intervention data
are Normally distributed

Baseline and Intervention data variances
are significantly different $\hat{\sigma}^2$ Intervention
data variation is significantly less – a
good thing.

ACT: Sustaining the Results

- Short term audits
 - Daily to weekly
- Long-term audits
 - Quarterly review of patients where X-ray response time was more than 20 minutes
- Education
 - PRN based on compliance
 - Yearly competency for nurses
 - Part of new employee orientation to the NICU

Return on Investment

- UHS 2017

Average hourly salary of a vascular access specialist= \$25-35/
hour

Not making parents wait to see their baby = PRICELESS

Conclusion/What's Next

Individuals Ch

Questions

Dist

Neither Baseline nor Intervention data are Normally distributed.

Baseline and Intervention data variances are significantly different Δ Intervention data variation is significantly less – a good thing.

Baseline and Intervention medians significantly different.

Intervention mean

than Baseline mean.

Individuals Ch

Both 1st and 2nd half of Intervention data are Normally distributed.

1st and 2nd half Intervention data variances are significantly different $\hat{\sigma}_2^2$ half Intervention data variation is significantly greater – a bad thing.

2nd half Intervention Procedure Time mean
than 1st half mean.

