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Introduction

In response to rising healthcare costs in the United States, the Johns Hopkins Department of Medicine created a High Value Care Committee to 1) make high value care part of the DOM culture, 2) reduce diagnostic testing or treatments that increase costs and do not improve care, 3) increase the value of care our patients receive, and 4) disseminate innovations throughout Hopkins and nationwide.

Unnecessary laboratory testing has negative impacts on patient satisfaction and safety and contributes to increased costs, motivating the committee to investigate the practice of daily lab orders.

Objectives

To identify:

- Baseline performance of daily lab ordering on all floor medicine patients at the Johns Hopkins Hospital
- Barriers to reducing unnecessary daily labs and venipunctures
- Potential interventions to change this practice

Methods

- Multidisciplinary team meetings, including faculty, housestaff, nursing, phlebotomy, and administration
 - Identify lab ordering process and work flow by shadowing
 - Analyze baseline data
 - Evaluate proposed interventions
- Descriptive statistics used to analyze lab ordering practices
- Housestaff education sessions at two noon conferences
- Creation of EPIC Ordering Tip-Sheet
- Collaborate with Johns Hopkins Technology Innovation Center

Findings to Date

- In August 2016, the average number of successful blood draws per patient per day was 2.48 for all floor medicine patients
- Average time of phlebotomy encounter is 4.77 minutes
- Data revealed 76% of lab draws were successful on the first stick, showing poor phlebotomy performance is not a contributing factor of high number of venipunctures

Results

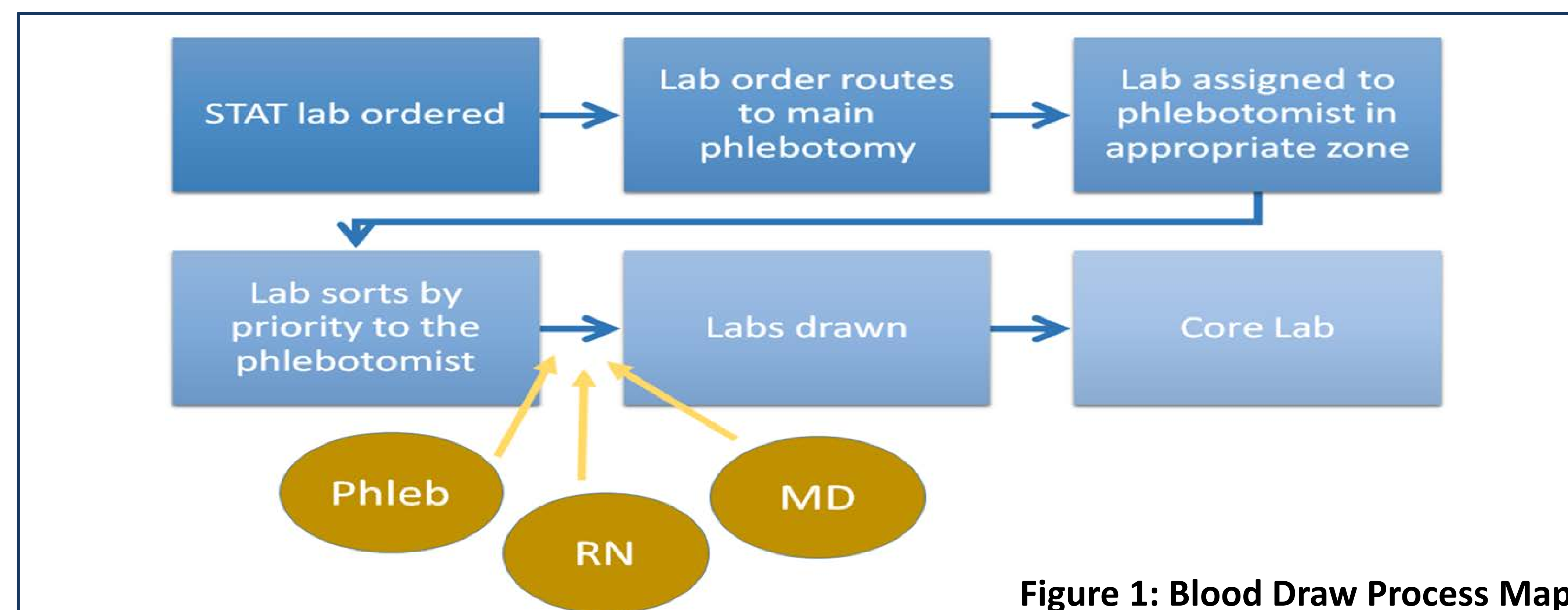


Figure 1: Blood Draw Process Map

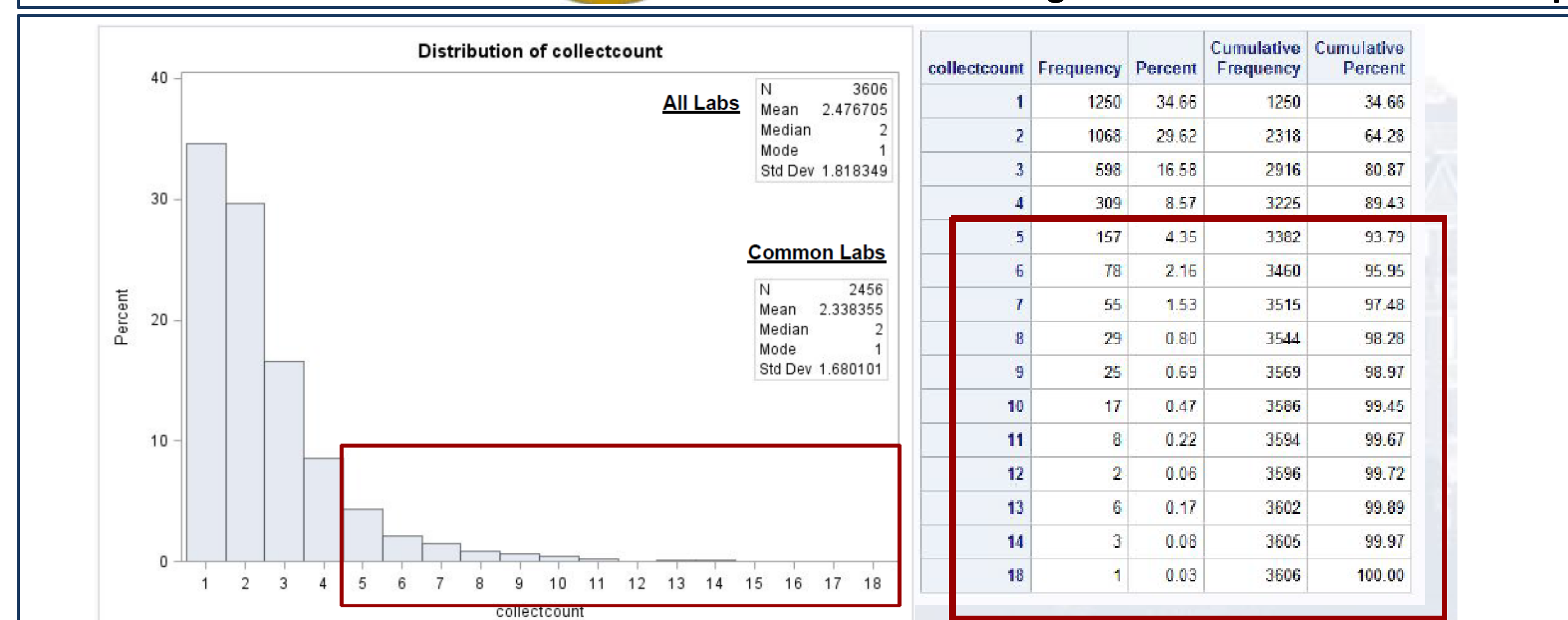


Figure 2: Successful Lab Collections per Patient per Day

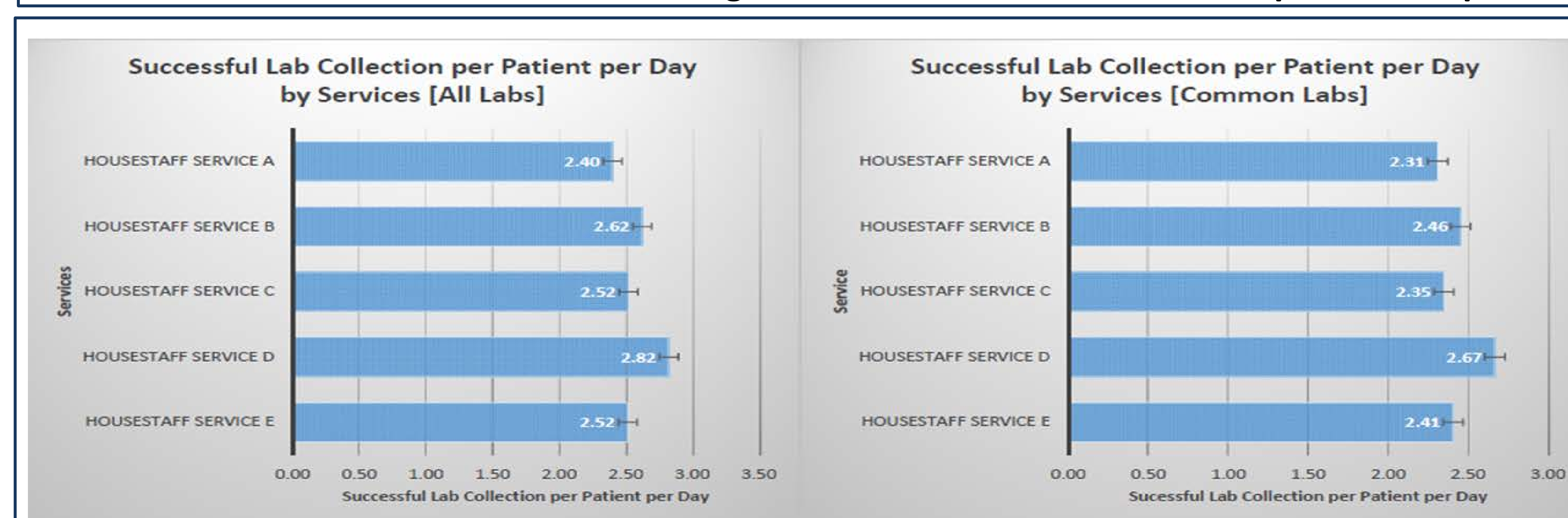


Figure 3: Successful Lab Collections by Service

The hospitalist service had fewer blood draws per day (1.99 per patient) in comparison to the five housestaff services.

Identified Barriers

- Assumption of daily labs as a part of JHH culture
- No discussion among care team regarding what labs are required
- Housestaff feel pressure to have all labs drawn prior to ACS rounds
- Lack of communication between provider teams and phlebotomy
- Poor consolidation of lab orders in EPIC – no good advocate
- No notification of lab cancellations in EPIC causing repeated labs
- Repeating labs not canceled prior to discharge

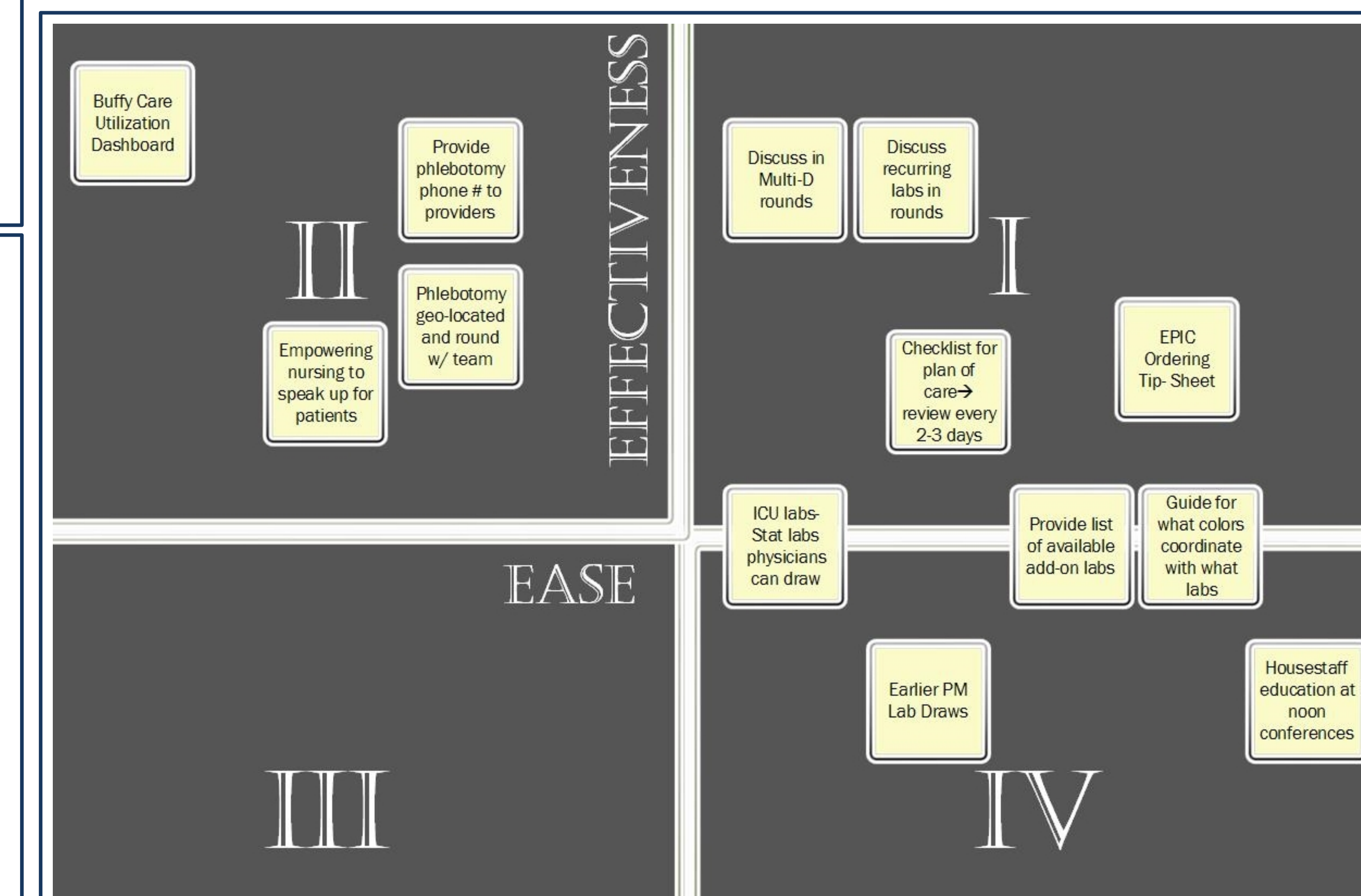


Figure 4: Proposed Interventions

At a noon conference, housestaff were asked to brainstorm potential interventions and rank them according to ease of implementation and effectiveness.

Conclusions

- Drivers of unnecessary lab ordering are technical and cultural
- Multidisciplinary teams are integral to developing sustainable interventions and creating a culture of high-value
- Interventions generated by those doing the work (housestaff, phlebotomy) are more likely to be feasible and successful

Future Directions

- Implement the Buffy Care Utilization Dashboard, which uses Epic data to track ordering of blood tests and imaging
- Pilot discussion of labs on multidisciplinary or ACS rounds
- Phlebotomy to PING providers as reminder to consolidate labs