

Pilot Study Evaluating a Post Hospital Follow-Up Curriculum for Internal Medicine Interns

Eric D. Frontera DO, Monling Ho BS, Komal Kochhar MD MHA
Indiana University School of Medicine

Abstract

Objective or purpose of innovation

Successful hospital follow-up visits can prevent medication errors and mitigate readmissions. Medical education curricula typically focus on how transitions of care are forwarded to providers within an inpatient setting, or from inpatient to outpatient; however, there is little formal training among Internal Medicine (IM) residents in performing ambulatory hospital follow-up visits.

Innovation Design

A novel curriculum was created whereby IM interns (PGY1) attended a one hour-long interactive lecture that was offered virtually and in-person. The interns observed patient scenarios that highlighted hospital follow-up tasks, which were then used to create a checklist for the learner to apply to their clinic patients.

Evaluation Plan: methods and measures

Before and after attending the interactive lecture, the interns were asked to complete a pre-test (n=14) and post-test (n=12) regarding their knowledge and attitudes about hospital follow-up visits. PGY2&3 IM residents (n=26) were also asked to complete the pre-test, but were not asked to attend the interactive lecture. This was done to establish a baseline of clinical competence that might be expected in more experienced residents.

Outcomes

Chi-square analysis revealed no significant differences between the pre-test and post-test results of the PGY1 interns.

In comparison to the more senior residents (PGY2&3), the interns remained significantly less likely (p< 0.05) to be confident in their ability to conduct hospital follow-up visits; to identify ways that hospital follow-up visits can help them understand inpatient care and management strategies; to consider social determinants of health as barriers and as possible triggers for readmission; and to be confident identifying next steps in patient care management following hospital discharge.

Innovation's strengths and limitations

Our biggest limitation was the small sample size which may have obscured any impact of the intervention. There are ongoing efforts to replicate this intervention with larger sample size.

Background

- Formal training among IM residents in ambulatory hospital follow-up visits is rare.
- A successful hospital follow-up visit can prevent medication errors and mitigate readmissions [1-2].
- Ambulatory Internal Medicine have long been a focus of the ACGME [3].

Methods

Learners

PGY1s attended a 1 hour (virtual or in-person) interactive lecture.

Learners observed in-office patient scenarios designed to prompt discussion and highlight hospital follow-up tasks, which were then used to create a checklist for the learner to apply in the clinic. (Figure 1).

Before and after the lecture, the PGY1s completed a pre-test (n=14) and post-test (n=12) regarding their knowledge and attitudes about hospital follow-up visits.

To establish a baseline of clinical competence that might be expected in more experienced residents, PGY2&3 IM residents (n=26) completed the pre-test.

Preceptors

Primary care internist preceptors across the program completed pre- and post-curriculum surveys to assess the curriculum's need and efficacy.

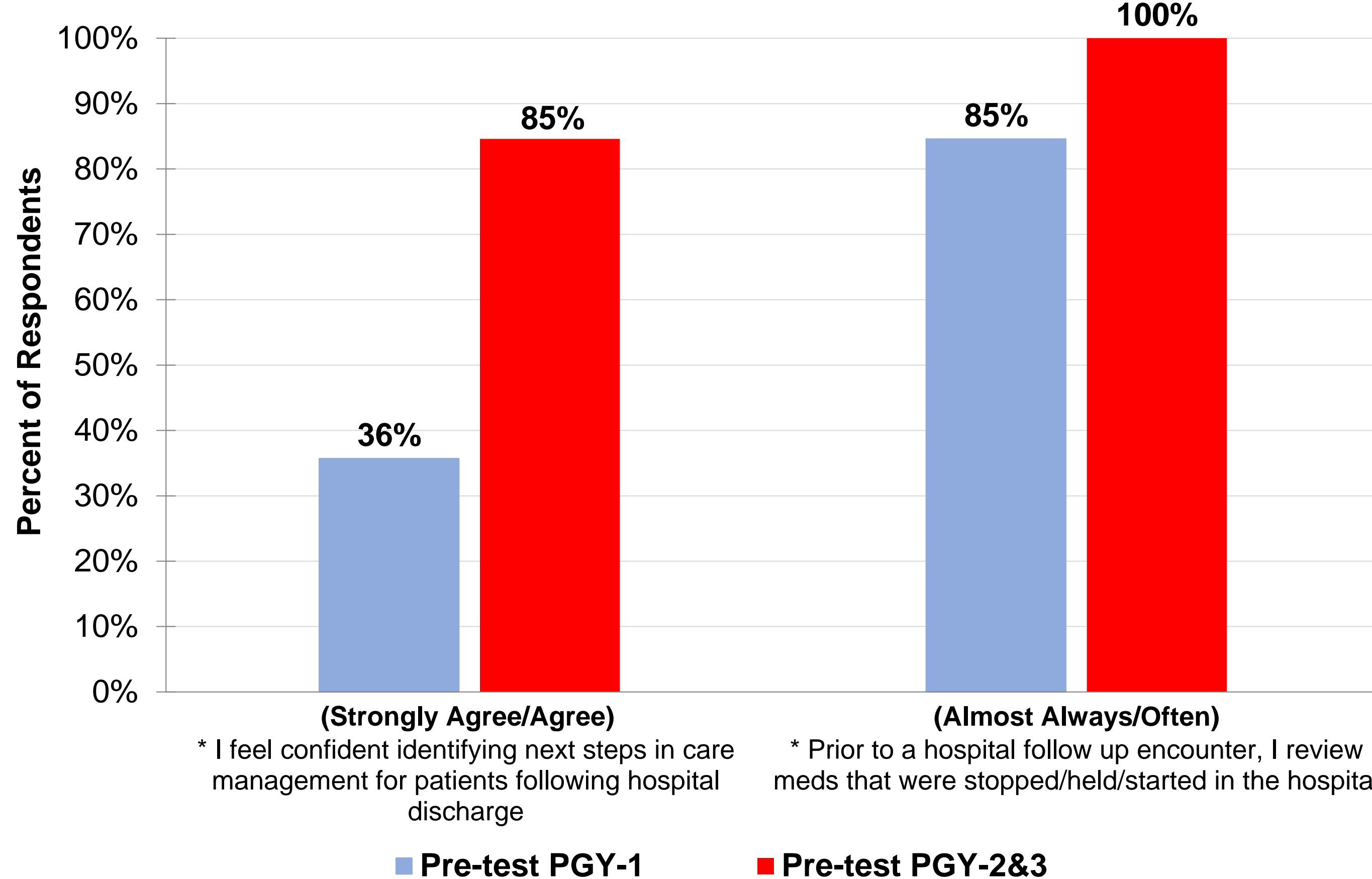
The post-curriculum preceptor survey had too low a response rate to draw valid conclusions.

Analysis

- Pre and Post survey results were analyzed with Chi-Square p-value.

Results

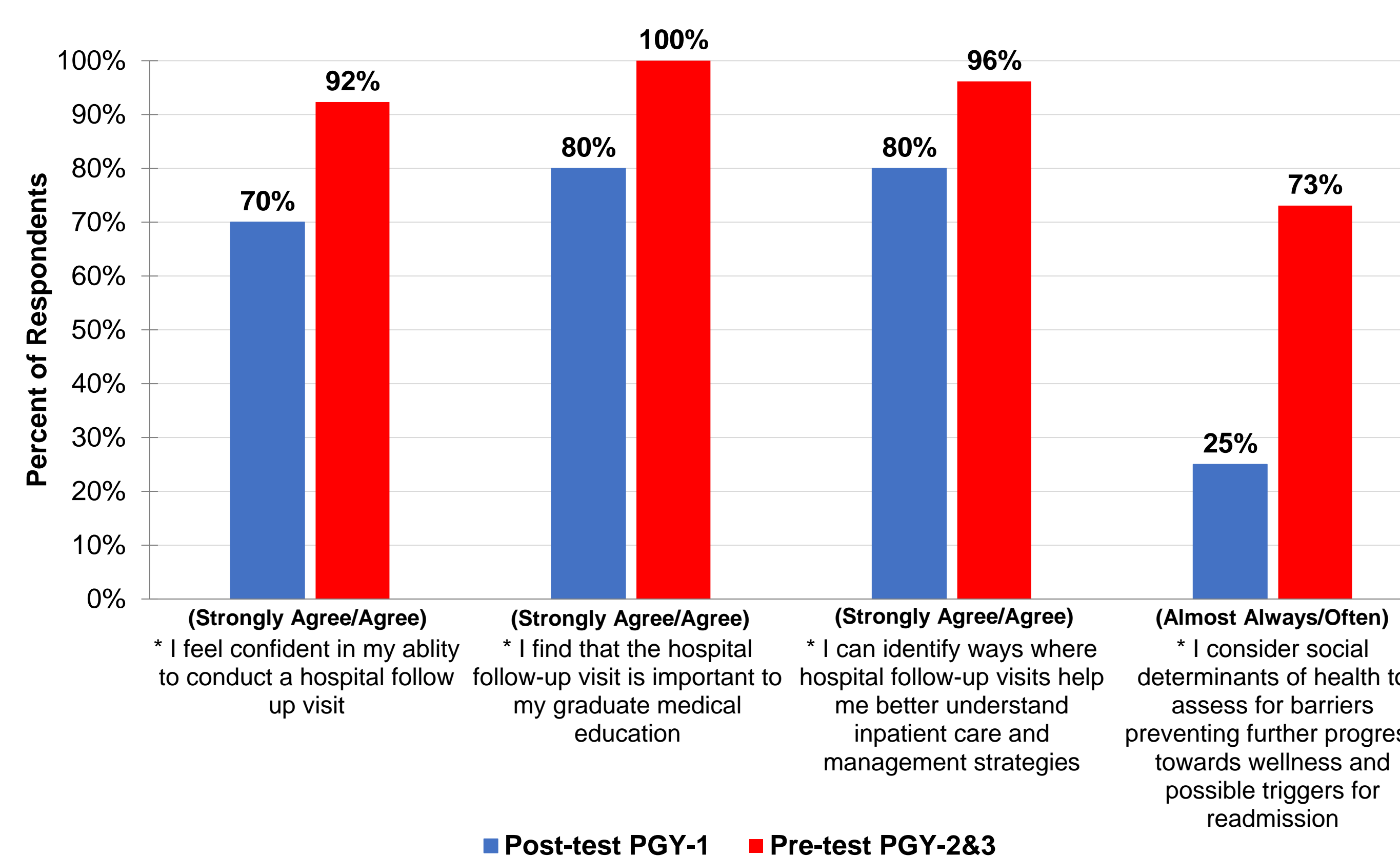
Pre-test PGY-1 vs. Pre-test PGY-2&3



*Denotes Statistical Significance (p-value ≤ 0.05)

Results

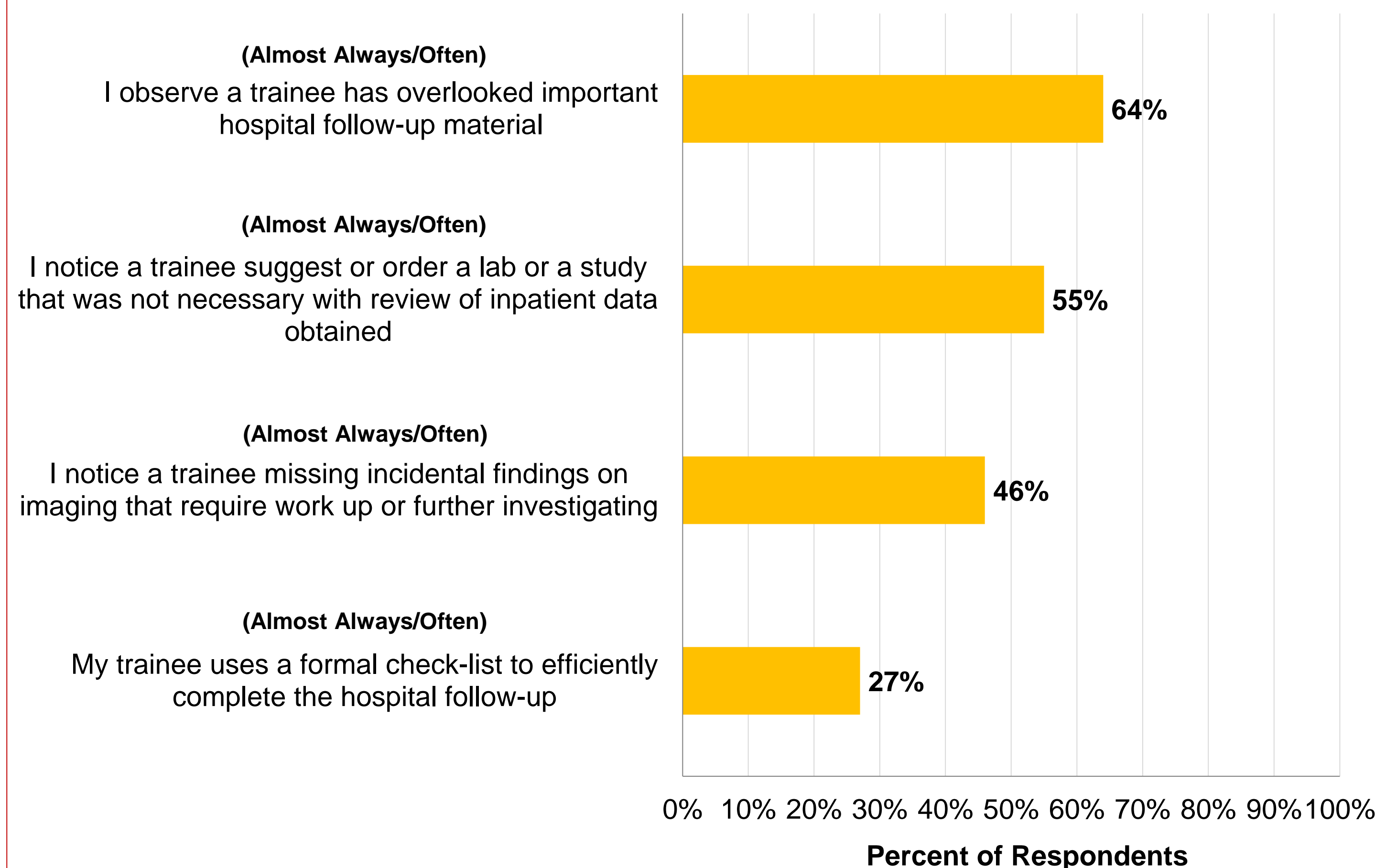
Post-test PGY-1 vs. Pre-test PGY-2&3



*Denotes Statistical Significance (p-value ≤ 0.05)

Results

Pre-Curriculum Preceptor Survey



Free Text Response

- Learners indicated a strong need for hospital follow-up training because of its importance in transitions of care.
- Preceptors highlighted the need for residents to better reconcile medications and to find data gaps in discharge summaries.

Hospital Follow-Up Check List

- Read and critically evaluate the Discharge Summary (DS)
- What mentions of chronic conditions are included in the DS? Have there been changes? Are some of the known chronic conditions not addressed?
- Review medications, compare it with your current active outpatient medications.
- Read consultant notes and look for plan differences, follow up.
- Review Objective Data from Hospital Stay:
 - Review vitals trends and compare to baseline data
 - Review imaging reports
 - Review images yourself
 - Review reported telemetry strips
 - Review EKGs
- Review Procedural Reports
- Evaluate need for future standing orders (consultants, imaging, labs, etc.)
- Review inpatient social work & case management notes to identify barriers in care
- Compare physical exam to pertinent positives with the DS physical exam
- Determine what preventative/primary-care measures today are pertinent
- Assess your patient's overall progress, review with staff/colleagues/family
- Follow up: Determine when you want to see your patient back and what referrals/testing need to be done in the interim
- Determine billing code

Conclusions

- There exists a need to train IM PGY1s in hospital-follow up.
- The residents expressed a desire to receive this training.
- Dedicated training might promote confidence and competency in management for this high-risk visit, making it a better experience for patients.
- However, variations in out-patient experiences may limit opportunities for learners to improve this clinic-visit skill.

Future Plans

- Replicating the curriculum with more residents to increase the statistical power can better define the curriculum's ability to train learners in the hospital follow-up.
- An asynchronous component should be explored for easy transferability to more learners.

References

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