

## BACKGROUND

Hospitals are generally safe, but sometimes harmful events happen that negatively affect patients, and many of these are preventable. This is an area that requires more attention as 1 in 10 Canadians have personally experienced such an incidence and 1 in 4 say that a loved one has (1). The consequences of these events amount to millions in correctional expenditure and result in degrees of harm ranging from no consequences to adverse health outcomes and increased morbidity and mortality. Therefore, it is crucial to have systems and education in place focused on patient safety to reduce the frequency of these incidences and minimize associated expenditures. Patient safety is the pursuit of the reduction and mitigation of unsafe acts within the healthcare system, as well as the use of best practices shown to lead to optimal patient outcomes.

Through this project, we aim to identify the educational gaps in patient safety in core internal medicine residents at the University of Alberta and bridge the gaps through an interactive educational intervention. The goals of the intervention are to improve learners' ability to identify, report, reflect on, and learn from potential hazards that could result in patient safety errors or harm.

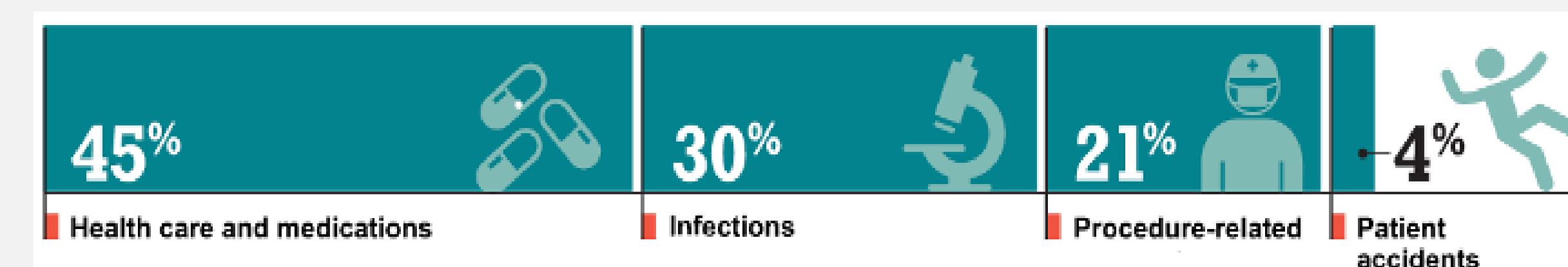


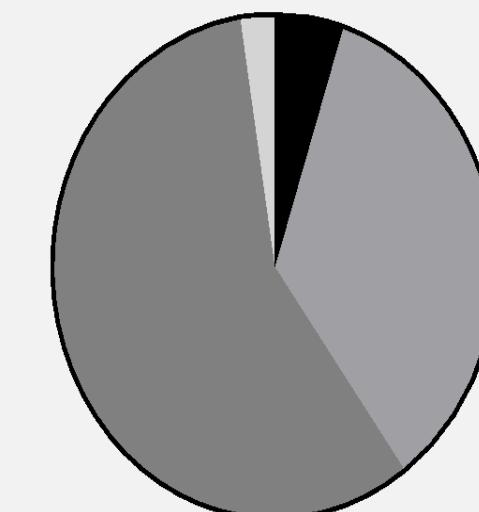
Figure 1: Four categories of patient harm in a hospital setting (2).

## PRE-SURVEY

N= 40 R1-R2 resident physicians

- >50% of participants believed that they have a clear understanding of patient safety.
- 30% of participants had observed a patient safety incident in the past.
- 95% of participants had no formal patient safety training.
- 95% of participants had not reported a patient safety incident into the Alberta Health Services Reporting & Learning System. Common reasons included: not having encountered an incident, being too busy, and being unaware about the reporting system.
- >50% of participants considered patient safety education to be a valuable addition to resident training.
- 92% of participants suggested that patient safety training should be provided during R1 year.

I have a clear understanding of patient safety



Patient safety education is a valuable addition to resident training

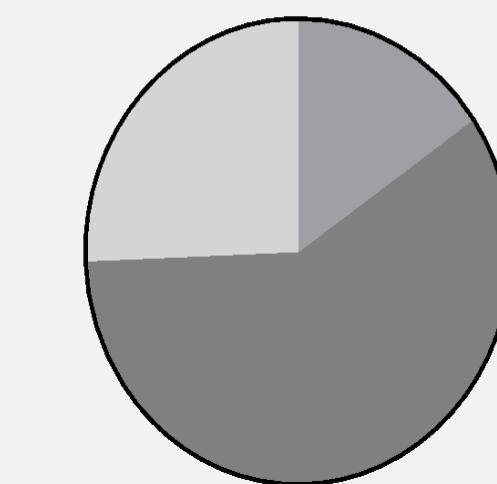


Figure 2: Resident opinions on their understanding of patient safety and the value of patient safety training during residency.

## METHODS

### Workshop Development & Implementation

A patient safety education workshop was developed by a team of resident physicians, medical students, a patient safety and a quality improvement specialists. The workshop included a presentation on basic patient safety terms, adverse event management, and key components in reporting an error. During the presentation, a video portraying a patient safety incident was shown to the participants, and participants were asked to apply their patient safety knowledge through a series of small group activities. The session was delivered to first- and second-year core internal medicine residents (n=52) at the University of Alberta during an academic half day.

### Assessment of Educational Workshop

Before the session, a pre-workshop survey was sent to resident physicians attending the workshop to assess their baseline experience with patient safety. The survey included questions on previous training in patient safety and previous experience with patient safety incidence. The survey also consisted of questions where respondents were asked to indicate on a modified Likert scale (1: strongly disagree, 2: disagree, 3: neither agree nor disagree, 4: agree, 5: strongly agree) the degree to which they agree with the provided statements. In addition, a short test was sent to the residents before and after the session to assess the effectiveness of the workshop.

After the session, a post-workshop survey was sent to all resident physicians who attended the session to obtain feedback on the patient safety education workshop. The survey consisted of questions where respondents were asked to indicate on a modified Likert scale the degree to which they agree with the statements pertaining to the workshop. An open-end question was also included for further textual comments.

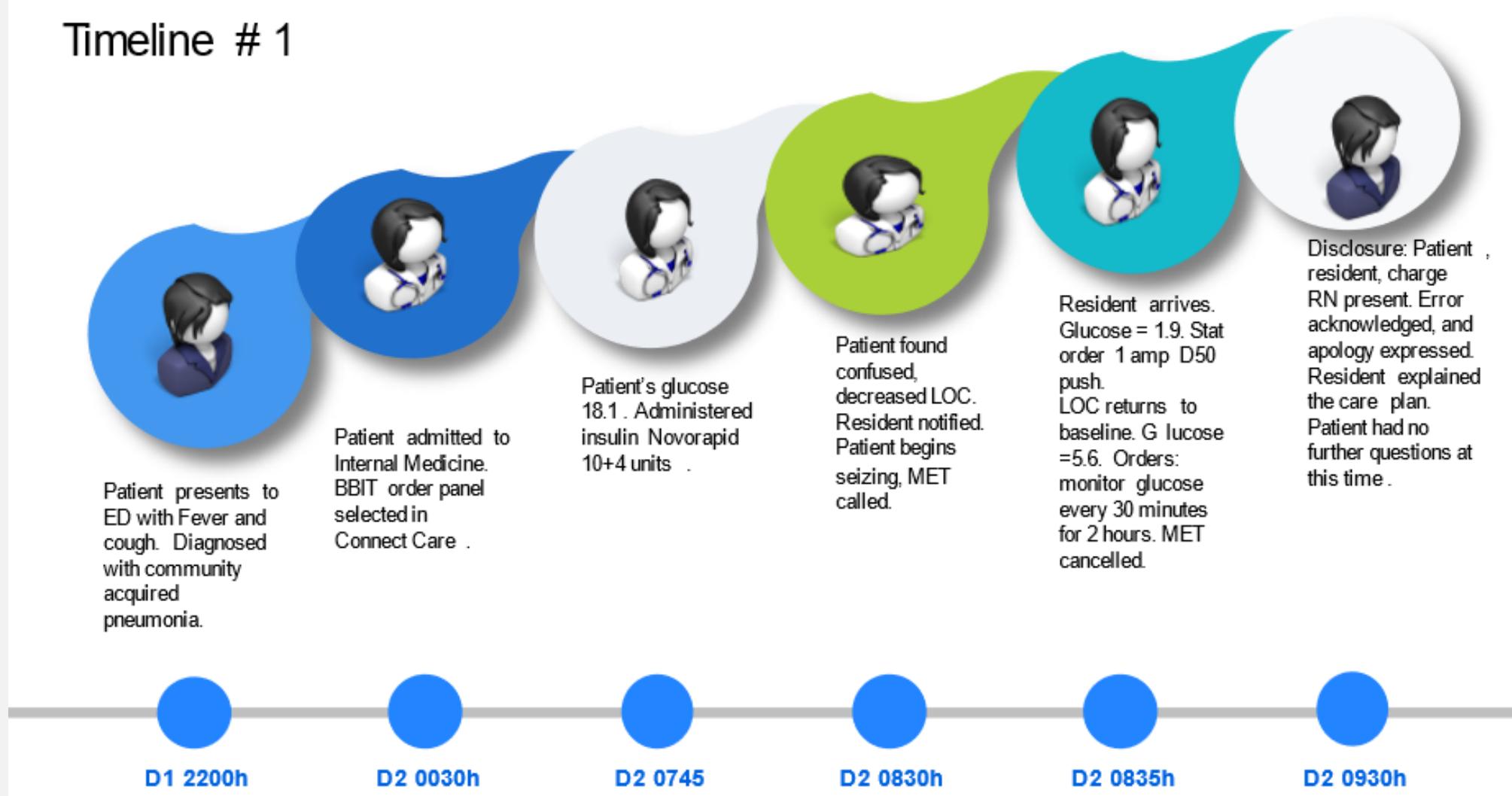


Figure 3: Timeline of patient safety incident video.



## REFERENCES

- CPSI - Patient Safety in Canada Baseline Report. Canadian Patient Safety Institute. 2018. Retrieved July 31, 2021, from <https://www.patientsafetyinstitute.ca/en/toolsResources/Documents/Patient%20Harm%20Awareness%20-%20Psops/CPSI%20-%20Patient%20Safety%20in%20Canada%20Baseline%20Report.pdf>.
- CPSI – Hospital Harm Measure. Canadian Patient Safety Institute. 2020. Retrieved July 31, 2021, from <https://www.patientsafetyinstitute.ca/en/toolsResources/Hospital-Harm-Measure/pages/default.aspx>.

## RESULTS

### Post-Workshop Survey

N=11

- All participants agreed that the workshop was relevant to their training and would allow them to recognize and respond to patient safety incidents in their practice.
- >50% of participants were pleased with the quality of information presented, quality of activities completed, and the quality of resources provided.
- All participants suggested that patient safety training should be provided during R1 year.

### Pre- and Post-Workshop Test

Out of the 52 participants that attended the workshop, 32 participants filled out the pre-test before the workshop. The respondents scored an average of 8.94 out of 13 questions. The post-test was filled out by 7 participants after the workshop, and the respondents scored an average of 10.29 out of 13 questions. The difference between the pre- and post-test results was not statistically significant, and the results of the same participant could not be compared as we did not include participant-linking IDs.

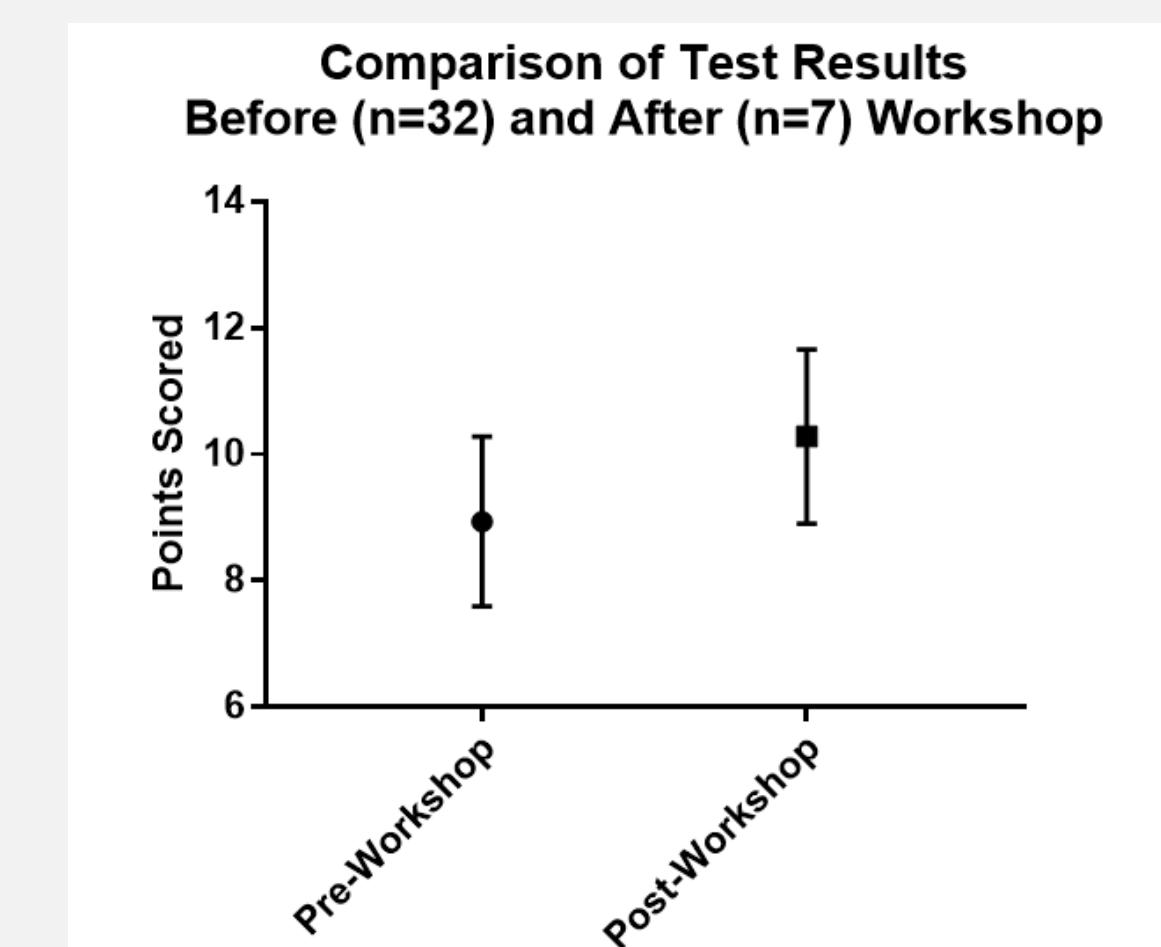


Figure 5: Comparison of test results before and after the workshop.

## DISCUSSION

- Most residents considered patient safety education to be a valuable addition to resident training and suggested that training should be provided during R1 year.

### Limitations

- Not all participants filled out the quiz and survey before the workshop with even fewer participants filling out the survey and quiz after the workshop
- Test results of the same participant could not be compared as we did not include participant-linking IDs

## CONCLUSIONS

### Next Steps

- Provide the patient safety workshop for residents in their R1 year of training.
- Incorporate time to demonstrate how to use the Reporting & Learning System (RLS) during the workshop.
- Provide training to individuals facilitating the small group exercises.
- Review the Royal College of Physicians and Surgeons of Canada patient safety curriculum to look for synergies and opportunities to incorporate our home-grown module and develop a better curriculum for resident physicians.
- Consult with curricular design experts to improve resources and create an online learning modules which residents can complete on their own time and can refer back to.