Background Patient safety becomes a challenging discipline in educational institutions and hospitals. As future nurses, it is expected that nursing students have sufficient knowledge and inspirational attitude towards promoting patient safety. The aim of this study was to assess the attitudes of Saudi nursing students towards patient safety and to identify the factors that influence their attitudes towards patient safety.

Methods Mixed methods research was done using a concurrent triangulation design. An Attitude Towards Patient Safety Questionnaire was developed by the researchers and given to all nursing students (n=296) who enrolled in the academic year 2017–2018 to collect the quantitative data, while a qualitative investigation guided by in-depth interview was done with a purposive sample of 14 nursing students to identify factors influencing their attitudes towards patient safety. Appropriate statistical analysis was applied while qualitative data were analyzed by content analysis.

Results The present study concluded that Saudi nursing students manifested high and positive attitudes towards patient safety and indicated that their attitudes were not affected by the academic level or learning experience. ‘Teaching patient safety issues’ scored as the highest dimension compared with ‘error disclosure and management dimensions’, which rated as the lowest dimension of students’ attitude. Many factors extracted from qualitative content analysis seem to influence students’ attitudes towards patient safety, identified as facilitators or barriers and thematically categorized as ‘patient factors’, ‘staff factors’, and ‘work environment factors’, with 25 subfactors under these themes.

Conclusion Nursing students should be supported by adequate training about safety measures to enhance their safety attitude, knowledge, and practice. Error reporting and disclosure culture should be a norm in nursing education and the healthcare environment. Therefore, students should participate in the process of error analysis and management with the provision of adequate clinical supervision. Various teaching-learning strategies including traditional teaching and problem-based learning should be integrated as instructional strategies by nurse educators for enhancing nursing students’ problem-solving and critical thinking and to bridge the identified theory-practice gap.

Improving X-ray utilization in ACC through a quality improvement approach – King Abdulaziz Medical City – Riyadh

Background Adult Radiology faced different challenges in to how to improve the patient care experience by decreasing waiting times between requesting an x-ray and it being performed. It was suggested that service expansion could overcome the problem. The performance improvement team has been called to assess the needs as well as staff demands. In January 2018 the project took place in the medical imaging outpatient department. Timely, efficient, and safe care of patients required medical imaging services specifically to improve turnaround times leading to enhanced patient experience.

Methods The project focused on the ACC clinics, measuring the time from when the x-ray was requested to the time it was performed. The x-ray unit runs an average of 27,000 x-ray tests per year. A process map was done to analyze and help in identifying bottlenecks that are holding up processes and the gaps that are leading to operational problems.

Results The result shows the average x-ray sessions that have been done since 2008 (including business cases), the decrease in sessions in 2015 is due to KASCH Hospital, which moved
the pediatric departments. For x-ray sessions in 2017 (23,448 in working hours and 1823 business cases), most of the x-ray sessions were done on Tuesday (28%), with fewest done on Thursday (10%). Upon analyzing the data, the calculated average patient waiting time was 22 minutes. Further analysis showed that 82% of patients had met the waiting time threshold, which is 30 minutes. The medical imaging unit located in the ACC building contains five x-ray rooms; 41% of all sessions in 2017 had been performed in room number 3.

**Conclusion**

Based on the analysis, the team determined that the process is stable and predictable. However, there are several areas for improvement that we would recommend focusing on:

1. The distribution of the clinic during the week, Thursdays have the fewest clinics; therefore, it is the least utilized day.
2. The distribution of the rooms to perform X-ray sessions; room number 3 is used most out the five rooms (41%) and room 1 is used the least (11.76%).
3. Waste of requesting X-ray tests overall hospital. The team suggest establishing small projects to highlight and improve the previous areas and review current staffing and rostering allocations.

**Development of a Specialty-Specific Handoff Tool: A National Electronic Delphi Study**

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10.1136/bmjoq-2019-PSF.77

**Background**

Handoffs at the end of clinical shifts are a daily routine in emergency department settings and are considered by most authorities as a common source of risk and potential harm to patients. There is a need to standardize the patient handoff process to reduce related human errors. This study aimed to use an electronic Delphi method to identify the core elements essential for an emergency department physician-to-physician handoff.

**Methods**

Panelists were required to be board-certified emergency physicians with no less than 3 years of post-board experience. An electronic Delphi-style study was performed over four rounds. The first was to identify elements and categorize them into domains, and the remaining three to score and debate individual elements. Items were anonymously scored on how frequently each element was required during handoffs, from 1 ‘rarely required’ to 10 ‘always required’. Panelists were able to add and respond to arguments as well.

**Results**

29 emergency physicians were enrolled in the panel and all panelists completed the entire Delphi process. The top five rated handoff elements were the chief complaint history, patient identification, clinical stability, working diagnosis, and consulting services involved. Panel scores showed less variability as rounds progressed and the final list of elements had a high reliability score (Cronbach’s alpha 0.93).

**Conclusion**

The study methods yielded an itemized and ranked list of elements that is easy to implement as a checklist or in forms and could be used to standardize patient handoffs by emergency physicians. Arbitrary cutoff values may be used to design a handoff tool based on the results of such studies. These cutoffs could help decide which elements to include or which elements may be mandatory in a proposed handoff tool. These methods may be adapted to develop standardized handoff frameworks that serve other specific disciplines or practice settings.