

The Philips logo is displayed in a bold, blue, sans-serif font within a white rounded rectangular box.The Blue Jay Consulting logo features the words "Blue Jay" in a blue serif font above the word "CONSULTING" in a smaller, blue, all-caps sans-serif font, all contained within a white rounded rectangular box.The text "White paper" is written in a white, sans-serif font on a dark blue rectangular background.A background photograph showing a group of healthcare professionals in a clinical setting. A woman in the foreground is wearing a grey blazer over a red top and has a name tag that says "PHILIPS" and "Arno K...". She is looking intently at a tablet held by a man next to her. Other people are visible in the background, some looking at a screen.

# Tabletop exercises

## as an adjunct to emergency department operations.

Jason Moretz, MHA, BSN, RN, CEN, CTRN.

Tabletop exercises have been utilized within the healthcare setting for emergency management planning for over 10 years.\* These exercises simulate a situation in an informal, stress-free environment.\* Participants in these exercises are decision makers, stakeholders, and persons with key information, who carry out scenarios and discuss general problems, procedures, changes and solutions.\* The usefulness of this type of exercise can extend past emergency management. Emergency departments can utilize tabletop exercises to simulate different patient throughput scenarios and alternatives to those scenarios. Furthermore, these exercises can also be modified into a tool to aid in interviewing potential charge nurse and patient flow or throughput nurse candidates.

There are tangible advantages to utilizing a tabletop exercise as a first step in implementing process change related to ED flow. Tabletops only require a small commitment of time and financial resources (FEMA, 2003). They are also an effective

tool for reviewing current processes, plans, procedures, and policies, and are non-invasive to staff and patients within the department (FEMA, 2003). There are also disadvantages to tabletop flow simulation in the ED. The exercises can lack realism of the actual event and may not sufficiently simulate challenges that are experienced in an actual event (FEMA, 2003). While conducting a patient throughput scenario, processes like bed turnover, staff meal breaks, transport time, and charge nurse distractions are difficult to simulate.

Other models to simulate patient throughput exist. The use of computer model simulation provides a quantitative tool for hospital and department leadership and staff to model different procedures such as staffing models, triage models or throughput models (Wang, Li, Tussey & Ross, 2012). Computer simulation can provide a wealth of statistical data and analysis about process changes; however, the models are time intensive and typically require specialized software and staff that can be costly (Brenner et al., 2010).

\* Federal Emergency Management Agency, 2003.

## Tabletops in throughput simulation

In 2003, the United States General Accounting Office report on emergency department crowding set the stage for the ongoing challenge in emergency department throughput. That challenge continues today with hospital and department leadership consistently searching for solutions to long patient lengths of stay, patient boarding, and increasing left without being seen rates. Today, facilities are faced with a limited amount of personnel resources and budgetary means to meet the patient needs that seem to be increasing at an exponential rate (Bellow & Gillespie, 2014). Utilizing tabletop exercises assist departments that struggle with throughput strategies by allowing for the adjustment of multiple variables during one or more simulations. These adjustments can be fine-tuned until the optimum results are achieved; then operational plans can be developed to meet the desired outcome of the simulation exercise.

One metropolitan emergency department in the Denver area desired to create a direct-to-bed process that worked seamlessly for staff and reduced their door-to-provider time. Creation of a direct-to-bed strategy has proven to assist in emergency department patient flow (Bertoty, Kuszajewski, & Marsh, 2007). Through this process patients are immediately taken to an open treatment space and do not have any assessment completed in the area designated for patient triage. This process facilitates patients getting to an area where providers can more readily and quickly assess them. This ED is part of a large for-profit healthcare system and was struggling to meet corporate metrics for patient throughput. Their baseline door-to-provider time for the department was 23 minutes compared to a goal of 10 minutes or less.

Department, hospital and corporate leadership developed a tabletop exercise, choosing to simulate the highest volume day within the previous six months. The department utilized a large, 4-foot by 3-foot, laminated drawing of the department from the plant operations fire blueprints. Game pieces were obtained to simulate patients utilizing five different colors for each triage acuity level and chess pieces to represent providers, nurses, paramedics, techs and secretaries. Index cards were generated for each patient in the department during the simulation period and included name, age, mode of arrival, chief complaint, triage acuity,

vital signs, arrival time, provider greet time, departure time and total length of stay. The cards were created utilizing Microsoft Excel; however, cards can be handwritten or generated with other software. Total time to prepare for the exercise was approximately four to six hours.

When developing your own exercise you may elect to simulate a “normal” operating day, or a “busy” day. Care should be exercised in simulating the busiest day as other factors that are not a normal part of operations may be needed, such as initiation of an internal disaster. The exercise was carried out on three different occasions with increasing success with each attempt. The exercises each lasted approximately four hours and simulated 178 patients in a 24-hour period. Variables such as nursing staff arrival times, room opening and closing times, provider staffing, personnel placement, and hallway bed utilization were all subject to adjustment.

On the third attempt, the group felt that an optimal plan was reached. Current staffing consisted of five registered nurses and three paramedics staffing at 0700 and 1900, as well as other mid-shift staffing coverage based on patient arrivals. The group discovered by transitioning to six registered nurses and two paramedics at 0700 and 1900, the department could open four additional rooms at 0700, have appropriate staffing for incoming providers, and appropriate staff to provide lunch breaks throughout the day. Department and hospital leadership created operational action plans for the staffing matrix changes to be implemented.

Furthermore, as the department attempted to practice immediate bedding, they routinely had filled all staffed beds by 1000. With the adjustments in the staffing model, more beds were available earlier in the day and immediate bedding could be continued until 1400. The department struggled with consistently being able to provide lunch breaks to employees. As a side effect of the greater departmental throughput, the department was able to dedicate a registered nurse for 12 hours from 1300 to 0100 to provide lunch and break relief to other staff.

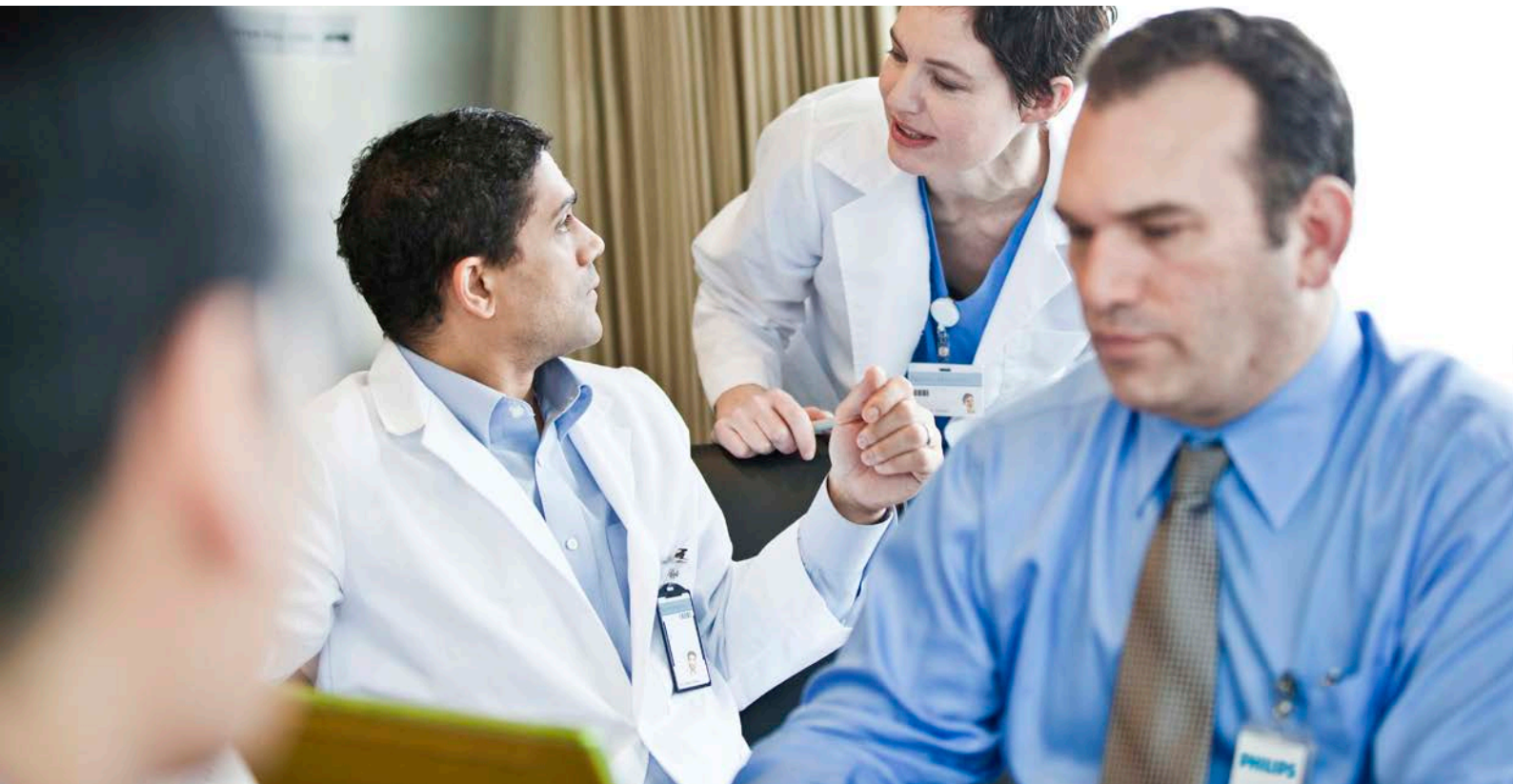
### Tabletops as an interview tool

According to Sawatzky and Enns (2012), hiring and providing sufficient support for qualified and effective emergency department leaders is imperative to increasing staff retention. They also identified employee engagement as a key correlate to retention of emergency nurses and that one factor influencing employee engagement is the department's nursing leaders (Sawatzky & Enns, 2012). In stark contrast, Assid (2010) expressed that more than 75% of emergency department charge nurses felt unprepared to do their jobs and did not even know what was outlined in their job description.

Emergency department charge nurses are the front-line, day-to-day operational leaders of their departments. They are responsible for patient throughput, staff communication, resource allocation, patient satisfaction, department productivity, and staff engagement. Critical thinking skills in a rapidly changing environment are essential to an emergency department charge nurse's success. Connelly, Yoder, and Miner-Williams (2003) identified critical thinking as one of the top competencies required by charge nurses.

In addition to the throughput challenges above, the same metropolitan emergency department was also experiencing a vacancy in one of their day shift charge nurse positions.

Department, hospital and corporate leadership discussed what the key factors were in hiring a successful emergency department charge nurse. The group felt that the ability to have spatial awareness surrounding department flow along with appropriate staff interaction and communication were crucial. A tabletop exercise was developed as part of the interview process. The exercise was considered an additional, subjective tool to a traditional face-to-face interview. The exercise was created to simulate a typical charge nurse's morning in the ED. First the candidate simulated receiving report from one of the interviewers. After receiving report, the candidate was to simulate facilitating a pre-shift huddle to the interview panel. During the huddle, it was found that an employee had not yet arrived, and the candidate was challenged to alter assignments and staffing ratios. The next several scenarios in the simulation evaluated patient placement of arriving patients, communication of impending critical arrivals by EMS, and possible STEMI and stroke protocols. In closing the simulation, the candidate was asked to simulate rounding on a patient. Opportunities were found with a non-completed communication board and the patient not understanding the current state of their plan of care. The candidate was then asked to coach the assigned nurses to finish the simulation.



Three candidates interviewed for the position. All candidates had emergency department experience, two of whom were currently employed in emergency departments, and one of those two was serving in a relief charge nurse role. Each candidate first went through a face-to-face interview, then the same tabletop exercise described above. Candidates were not assisted or questioned during their decision making processes; however, they were asked at the beginning to verbalize what they were doing and their decision making process for doing so.

Feedback following the interviews from the candidates and panel was positive. Candidates found the exercise fun and felt it was a different approach in conducting an interview. The interview panel found the exercise very helpful as a tool in the selection process. Interviewers commented that it was not necessarily the specifics of patient placement or resource allocation, but the candidates responses to stressful situations and their decision making process that was the important factor. Each candidate performed much differently throughout the exercise and the interview panel believed that evaluating their critical thinking during the experience was most beneficial in the selection process.

## Summary

Emergency management, on a wide range of scales and scopes to improve emergency responses, has utilized tabletop exercises frequently. As described here, this tool can be easily adapted to also improve operational efficiencies and training within emergency departments. These exercises have provided benefit in a large metropolitan emergency department as a first step to department throughput process improvement and as a tool for charge nurse interviews. The same process could potentially be utilized in other emergency departments with similar challenges and additional tabletop exercises could also be designed to improve other processes within the emergency department and hospital.

## About the author

**Jason Moretz**, MHA, BSN, RN, CEN, CTRN has extensive experience as an ED nurse leader and management consultant. He brings expertise with level 1 trauma centers, pediatric EDs, and community EDs and has lectured on process improvement strategy, triage training, and leadership/team development and has presented on tabletop exercises in relation to EDs. Jason is a certified emergency nurse and transport RN and can be reached at [jason.moretz@philips.com](mailto:jason.moretz@philips.com).

## Learn more

Through transformative, end-to-end engagements, Philips Healthcare Transformation Services can help you unlock opportunities to solve your complex, intertwined challenges of care delivery. We can help you achieve meaningful and sustainable improvements in clinical excellence, operational efficiency, patient safety, and financial performance to improve value to your patients. For more information, please visit [www.philips.com/healthcareconsulting](http://www.philips.com/healthcareconsulting).

## Bibliography

- Assid, P. (2010, October). How to build an ED charge nurse training program. *Nursing Management*, October 2010, 49-51.
- Bellow, A., & Gillespie, G. (2014, March). The evolution of ED crowding. *Journal of Emergency Nursing*, 40, 153-160.
- Bertoty, D., Kuszajewski, M., & Marsh, E. (2007, February). Direct to-room: One department's approach to improving ED throughput. *Journal of Emergency Nursing*, 33, 26-30.
- Brenner, S., Zeng, Z., Liu, Y., Wang, J., Li, J., & Howard, P. (2010, July). Modeling and analysis of the emergency department at University of Kentucky Chandler Hospital using simulations. *Journal of Emergency Nursing*, 36, 303-310.
- Connolly, L., Yoder, L., & Miner-Williams, D. (2003, October). A qualitative study of charge nurse competencies. *MedSurg Nursing*, 12, 298-306.
- Federal Emergency Management Agency. (2003). Unit 5: The Tabletop Exercise. Emergency Management Institute: Exercise Design IS-139.
- Sawatzky, J., & Enns, C. (2012). Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management*, 20, 696-707.
- United States General Accounting Office. (2003). Hospital emergency departments: Crowded conditions vary among hospitals and communities (GAO publication Nov. 03-460). Retrieved from <https://www.gao.gov/products/GAO-03-046>
- Wang, J., Li, J., Tussey, K., & Ross, K. (2012, November). Reducing length of stay in emergency department: A simulation study at a community hospital. *IEEE Transactions on Systems, Man, and Cybernetics*, 42, 1314-1322.

