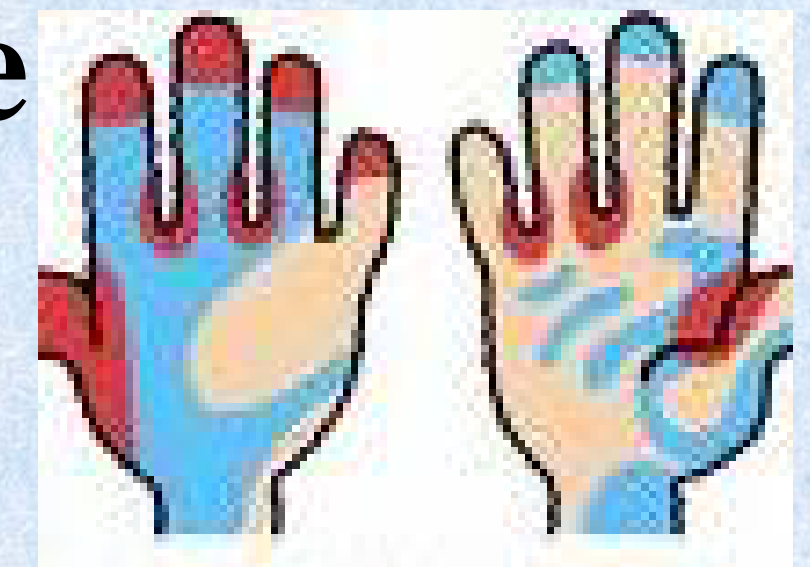


Proving Worth in the Simulation Lab to Bring Students Back to the Bedside A Foley Catheter Trial



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INTRODUCTION

Heightened patient awareness and transparency to outcomes has led to medical students (MS) being marginalized from procedural experiences, despite a lack of evidence suggesting that MS place patients at increased risk after proper training. Since simulation training has been shown to improve procedural competence and confidence of trainees. We organized a pre-clinical credentialing program for urinary catheterization (UC) by MS in simulation center. We hypothesized that after undergoing this hands-on educational campaign MS will demonstrate proficiency comparable to experts.



Scoring System Used to Assess Asepsis

Glo present	Points awarded
No glo on hands, catheter and perineum	0
Glo on washed hands or perineum, area < a dime	1
Glo area larger than a Dime or glo on catheter and any glo on sterile glove of the hand used for catheterization	2

METHODS

Second year MS (n=75) underwent a faculty driven educational campaign for UC based on the principles of practice based learning and improvement before starting their surgery clinical clerkship. Students were tested after the training using a task specific check list to assess competency. Experts (surgery residents, n= 21) received traditional training and defined gold standard. Simulated germs (Glogerm Inc) were used to assess sterile technique. Students sterility and technical proficiency was compared to experts using a two tailed t-test.



Pictures from Google images

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RESULTS

64 MS (85%) volunteered to participate in this IRB approved study and have their glogerm load and proficiency score for UC be compared against experts. Compared to experts, students washed their hands with equal effectiveness ($p=0.2$) and maintained better sterility during the procedure ($p=0.05$), as determined by the glogerm load on the hands and perineum or catheter placed. Students also had a higher technical proficiency score for UC ($p<0.001$).

Anonymous post training feedback (n=30, response rate 47%) highlighted that most trainee believed it was a great idea to use simulated germs to highlight effectiveness of hand washing (100%) and they will now pay extra attention when washing hand before any procedure (97%).

CONCLUSION

With adequate education and supervision, students can perform UC better than experts. We believe this approach will also foster student comfort and in so doing ease the transition to the bedside so that patients are less weary of their young providers.

This approach can be extended to other relatively low risk procedures to assure that students are appropriately trained to become independent practitioners in the simulation centers prior to approaching patients.