

A touch of added realism: Preparation of your patient simulator for urinary catheterisation

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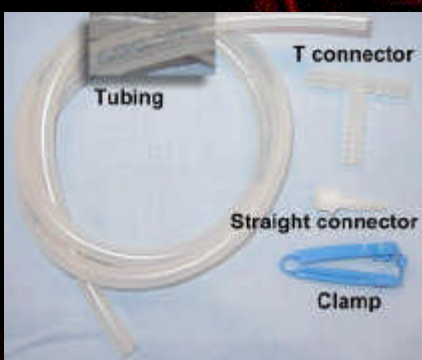
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Background and Goal

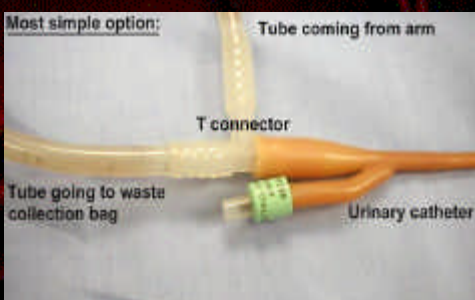
Putting students through medical simulation experiences provides them with some valuable insight into the real world of clinical practice in a safe environment. High fidelity simulation¹ is not only obtained thanks to a patient simulator but also according to its surrounding environment. To help trainees suspend disbelief all details must be considered in advance. The aim of this abstract is to present a minor modification requiring some basic disposable equipment (Picture 1) made to a patient simulator regarding fluids and urinary catheterisation.

Material and Methods

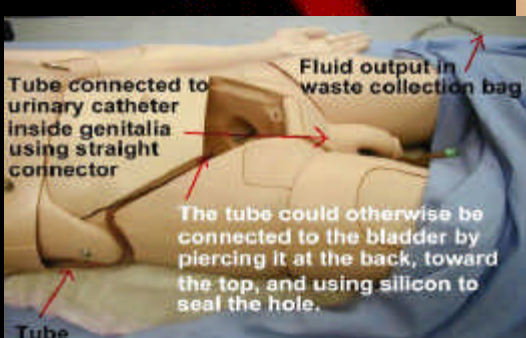
Most patient simulators have a canulation arm with two tubes coming out. Once primed with simulated blood, one end can be clamped (Picture 2) and the other extended with a tube joined to a T-piece connector to link the urinary catheter and the urine drainage bag (Picture 3). The tube can be hidden under the side of the manikin's chest skin (Picture 4). As students inject fluids it gradually fills the drainage bag, hence giving a fluid output. The mannequin's vein can otherwise be directly connected to the catheter inside the bladder (Picture 5).



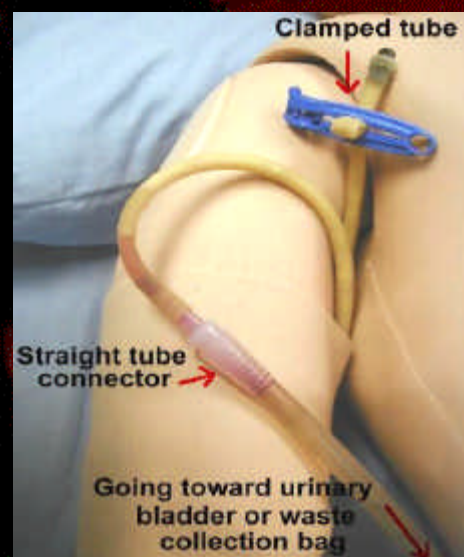
Picture 1: Equipment required



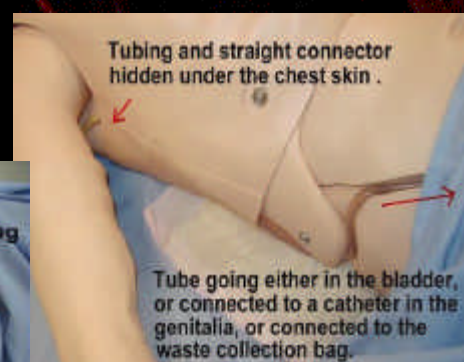
Picture 3: Connection of T-piece to tubing and urinary catheter



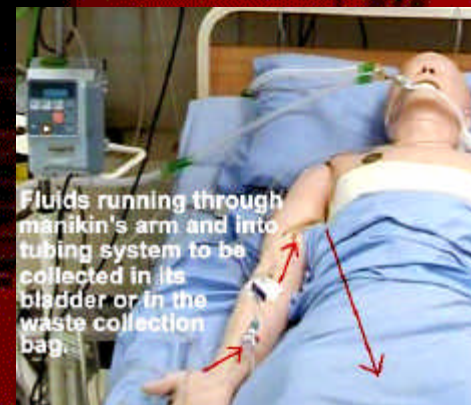
Picture 5: Direct connection of the tubing to the catheter



Picture 2: Connections on canulation arm



Picture 4: Tubing under the mannequin's skin



Picture 6: Canulated patient simulator



Picture 7: Urinary output

Results and Discussion

This process enables collection of fluids injected in the patient in a hidden way at the same time as producing a fluid output (Pictures 6 & 7). Hence trainees are not questioning the presence of an unexpected collection bag at the bedside. The drainage bag can contain undiluted colorant to appropriately dye the fluids into urine. If not dyed trainees should be warned that the colour of the urine will be that of the fluids they are injecting.

Conclusion

The use of medical simulation is still rapidly increasing² and it is important that users share their expertise in designing scenarios and in improving simulation tools for the benefits of the trainees, and ultimately, for improved patient care. This simple modification is safe, inexpensive, and makes the simulation more realistic.

References

- 1-Thiagarajan S (1998) The myths and realities of simulations in performance technology. *Educational Technology*, 38(5), 35-41
- 2-Issenberg SB et al. (1999) Simulation technology for health care professional skills training and assessment. *JAMA* 282(9), 860-866

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