A Low Budget Perineal Repair Model

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Abstract

BACKGROUND: We designed a low-cost model to prepare junior surgeons for the limited accessibility and visibility of perineal lacerations. This model has advantages over the classical beef tongue model including lower cost, being easier to build, and lasting longer.

METHODS: To build the model, follow these instructions:

1) Cut two 4-inch segments of pipe insulator. Layer one segment within the other; use glue to attach.
2) Use scissors to make a hole in the proximal bottom segment of the model, perpendicular to the long axis.
3) Use needle drivers to pull the caulk saver segment through the hole. This will represent the external anal sphincter.
4) Now cut off a finger of a gardening glove. Glue this onto the bottom of the proximal end of the model to represent the rectum.
5) Now that the model is complete, create a 2nd, 3rd, or 4th degree perineal repair.

RESULTS: Each of our models can be made in about 5 minutes and costs $2.09 per model. Our model was directly compared to the classical beef tongue model used by many programs to simulate perineal repairs. At our program, it took residents on average 15 minutes to create their beef tongue model and cost $16.50 per model which had to be used immediately and discarded afterwards due to the meat spoiling. Overall, our model was seen as a useful training tool to be used in addition to the current curriculum. It does not require significant preparation to build or use unlike the beef tongue model, and it is sufficiently cheap for medical students and residents to take home.

DISCUSSION/CONCLUSION: Many medical models are prohibitively expensive for the individual to purchase or are reserved for rare training sessions in a simulation center due to their scarcity. This is an efficient and practical model which accurately demonstrates the limited space and visibility of perineal repairs while also allowing residents to conveniently practice 3rd and 4th degree repairs, which are so infrequent in modern obstetrical practice.