



THE IN-HOUSE NASAL FOREIGN BODY REMOVAL MANIKIN FOR TRAINING

Pittayapon Pitathawatchai,¹ Sittichoke Anuntaseree,²

¹ *Department of Otolaryngology Head & Neck Surgery, Faculty of Medicine, Prince of Songkla University, Hatyai, Thailand,*

² *Med PSU Innovation Centers, Faculty of Medicine, Prince of Songkla University, Hatyai, Thailand*

Background

Two barriers were encountered to upskill medical students for a nasal foreign body removal. Firstly, medical students should not perform such procedure in real or simulated patients to avoid life-threatening foreign body aspiration during training. Secondly, a commercial manikin was expensive, and did not serve the actual needs of end users.

Summary of work

The problems of a commercial manikin were discussed with an otolaryngologist. All material for manikin development was selected to ensure its functionality and elasticity similar to the real nose. The prototype was created and redesigned based on otolaryngologists' feedbacks. The finished prototype was then implemented in a routine class to ensure its functionality.



Results

The main problems with a commercial manikin were its structure not similar to human anatomy and easily torn nasal alae requiring immediate repair by a manufacturer which was unavailable during training.

Silicone was selected for the in-house manikin. The finished prototype was finally designed with the detachable nose and nasal cavity.



Discussion and Conclusion

The in-house manikin was developed from a silicone which has elasticity similar to the nose. The specially designed detachable nose was created in order to allow medical students to completely check the position of foreign bodies, and also to replace torn nasal alae with spare items any time during training. Therefore, this specific design of the in-house manikin could enhance the learning experience of medical students.

Take home message

The in-house manikin with a specific design could be devised to ensure medical students' proficiency in future practice.