



Background

Exchange blood transfusion (EBT) is indicated for neonates during the first few weeks of life with jaundice when total serum bilirubin level is at or above the exchange transfusion level. EBT is a rare and high risk procedure in the management of neonatal hyperbilirubinaemia. Our statistic from Jan 2013 to April 2015 there were 29 EBT performed. Currently there is a Work Instruction (WI) to guide the healthcare team, however nurses still faced with a lot of challenges in assisting EBT procedure such as inconsistency in the preparations and cleansing techniques.

Objectives

- Provide a quick reference guide for nurses to better understand the procedure.
- Provide a good visualization of simulated EBT procedure in a systematic manner.
- Standardise practices in the preparations and cleansing techniques.

Methodology

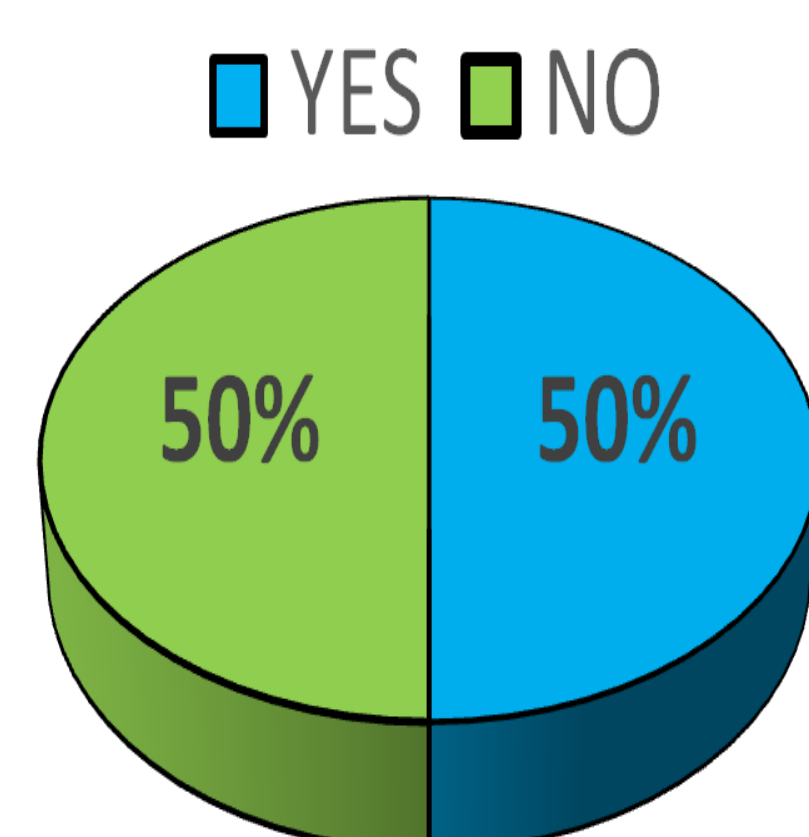
Understanding the problem:

➤ Observation

An observation study was conducted to understand the problem faced by nurses in assisting EBT procedure and we concluded there were inconsistency in the preparations and cleansing techniques. Nurses shared that it is a challenge to understand and decipher the EBT techniques via WI as it is too wordy. Thus, the team decided to conduct a survey on nurses to find out whether WI is sufficient to guide them through EBT procedure.

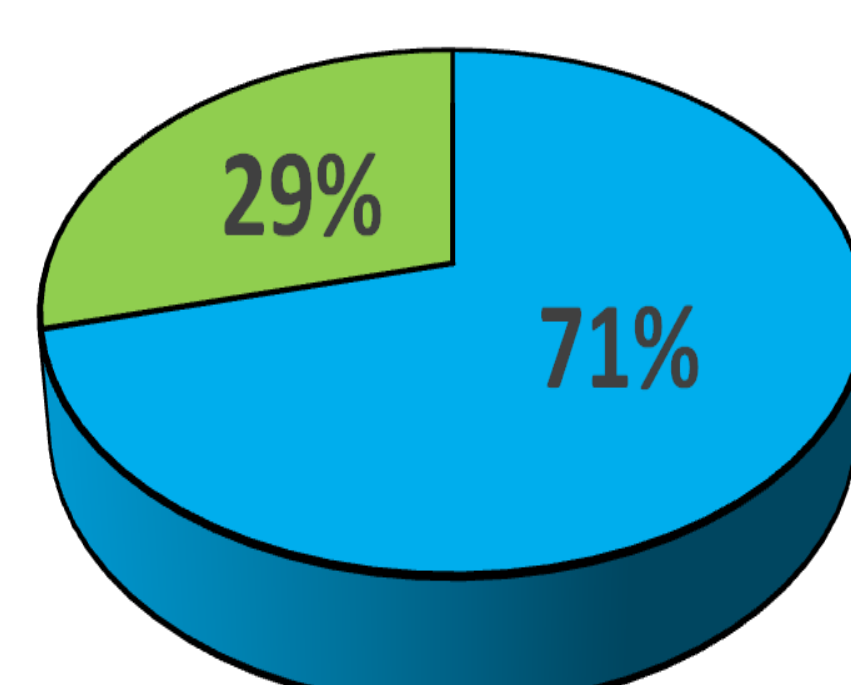
➤ Pre Survey from nurses

WI is insufficient to guide through EBT procedure.



Feedback received from nurses include difficulties to visualize, understand and follow through the procedure using WI alone.

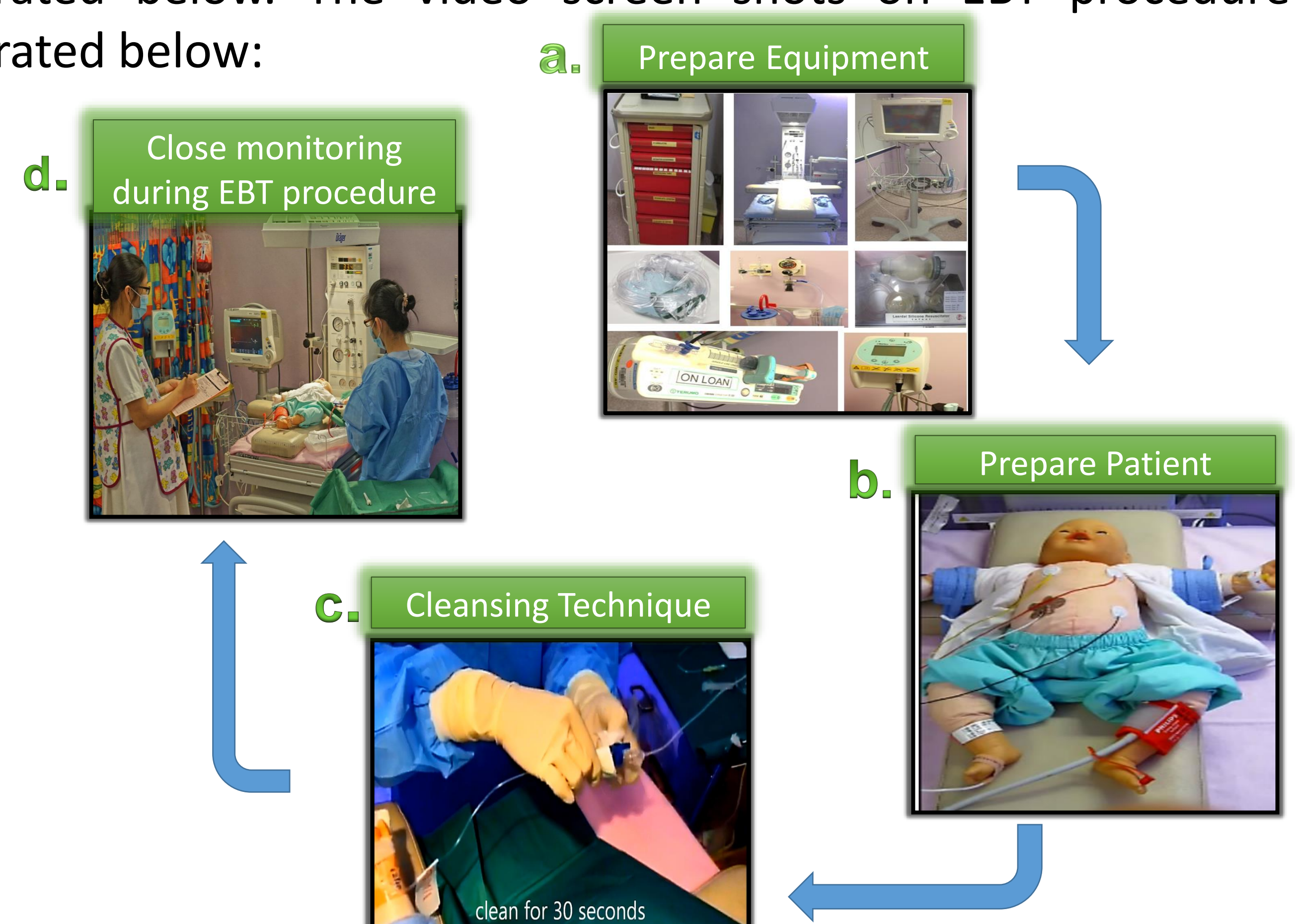
Video learning aid will help to provide better understanding in addition to WI on EBT procedure.



Intervention

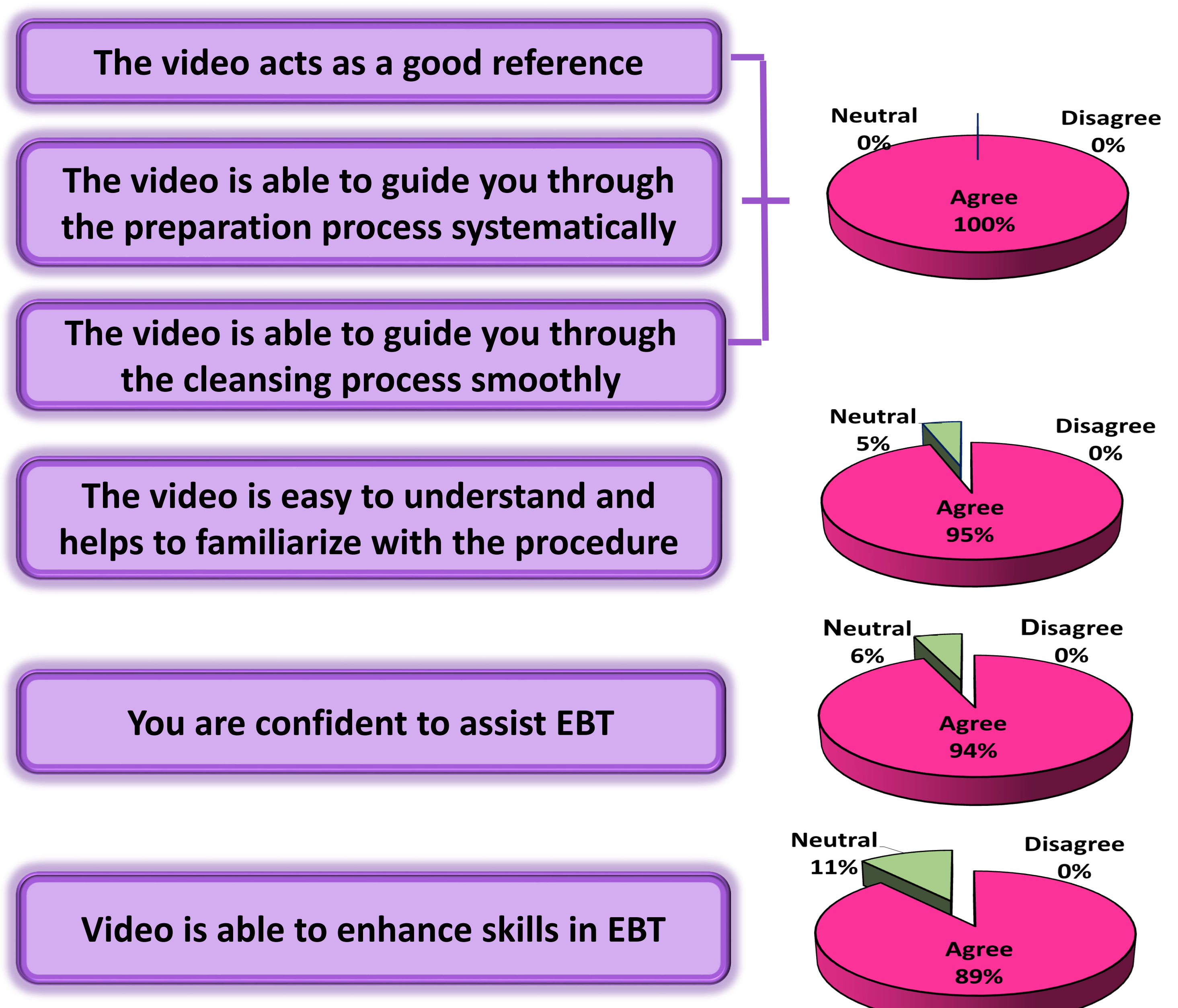
To develop a video guide on EBT procedure

Based on the pre survey results, the team felt that a video aid in addition to WI will help to guide nurses through the procedure and standardise the practice of EBT. An eleven minutes video was developed to provide a good visualization of simulated EBT procedure in a systematic manner, which includes preparation phase, intra procedure phase and post procedure phase as illustrated below. The video screen shots on EBT procedure as illustrated below:



Results

A post implementation of the video with WI survey involving 18 nurses to solicit the effectiveness of the video was conducted and the results showed that the video has achieved the study objectives as shown:



Conclusion

The outcome of this innovative video received positive feedback from the nurses. They shared that the video simulates the procedure in a systematic manner. Hence, it reduces risk of contamination, provides consistency and standardization when performing EBT, which further enhances patient's safety.