



Service Priorities and Programmes Electronic Presentations

Convention ID: 35

Submitting author: Miss Michelle Wai Fan WONG

Post title: Advanced Practice Nurse, Prince of Wales Hospital

Laser Timeout to Reduce Risks of Laser Accidents and Enhance Patient and Staff Safety in PWH OT

Wong WKJ(1), Wong WFM(1), Lee WWW(1)

(1) Operating Theatre, Department of Anaesthesia & Intensive Care Unit, Prince of Wales Hospital

Keywords:

Laser Timeout

Introduction

Introduction:

Laser today is being used in all types of surgeries such as ophthalmology, urology and Ear, Nose & Throat (ENT). Despite the implementation of laser safety in our daily practice, some potential risks needed to be addressed (Castelluccio, 2012).

According to our fire risk assessment which was performed from September 2015 to December 2015 in Operating Theatre (OT) of Prince of Wales Hospital (PWH), there are 86 cases out of 3896 with a score of 3 points (high risk procedure prompt to operating room fire). In order to enhance patient safety in regard to safe use of medical lasers, Laser Timeout has been launched in 1st March 2016 and full implementation has been operated since 1st September 2016 in PWH OT.

Objectives

Objectives:

- (1) To provide best practice on the safe use of medical lasers
- (2) To enhance patient safety regarding to high risk procedure such as airway fire
- (3) To prevent operating room fire by breaking the three components of the fire triangle

Methodology

Methodology:

Laser Timeout Safety Checklist is created, which is done in routine "Surgical Timeout" and before the laser activation respectively. A survey has been conducted in August 2016 after the trial in Ear, Nose & Throat surgeries since March 2016 and urology surgeries since June 2016 in order to evaluate the effectiveness of the new launched laser timeout checklist during laser surgeries.

Result

Results:

Sample size is 31 cases which include surgeons are 5; anesthetists are 4 and nurses are 22. The top highest item was the majority 83.8% agreed that the item of laser timeout checklist is adequate to ensure patients and staffs safety and the laser timeout increase staff awareness of laser safety respectively. The lowest item was 67.7% agreed that the laser timeout checklist is not time-consuming. Overall, 90.3% showed satisfactory on the implementation of laser timeout. No any incidence was reported during 6-month trial period.

Conclusions:

The laser timeout procedure has significant result to reduce the risk of laser hazards and to increase staff knowledge regarding to laser safety. The checklist increases staff awareness of laser safety. Moreover, we will simplify the checklist in the future so as to reduce time-consuming.