ENCISION®

AEM® SAFETY – PERFORMANCE – VALUE

Non-AEM Monopolar Laparoscopic Instruments:
Complication and Mortality Rates from Thermal Bowel Injuries

Description	USA Data
Number of monopolar laparoscopic procedures performed in the USA every year: • 3 million laparoscopic procedures annually in USA • 85% use monopolar electrosurgical energy	**2,550,000 procedures Annually[1]**
Incidence of thermal bowel injuries during laparoscopic surgery: • 1.3 bowel injuries in 1000 procedures (50% are due to thermal injury) • thermal injuries likely underreported	**0.065%[2-5]**
Incidence of death from thermal bowel injuries during laparoscopic surgery: • Peritonitis has a mortality rate of 25% • 0.065% x 25% = 0.01625%	**0.01625%[6]**
Number of preventable monopolar laparoscopic bowel injuries: • (2,550,000 procedures annually) x (0.065% risk) x (10 years) = 16,575	**16,575 injuries over 10 years**
Number of preventable monopolar laparoscopic deaths over a 10 year period: • (2,550,000 procedures annually) x (0.01625% risk) x (10 years) = 4,144	**4,144 deaths over 10 years**
Number of preventable monopolar laparoscopic deaths per year: • (2,550,000 procedures annually) x (0.01625% risk) = 414	**400 - 500 deaths per year**
Number of preventable monopolar laparoscopic deaths per day: • (2,550,000 procedures annually) x (0.01625% risk) / (365 days) = 1.14	**1 - 2 deaths per day**

Non-AEM Monopolar Laparoscopic Instruments:
Complication Rates from All Thermal Injuries

Description	USA Data
Number of preventable monopolar laparoscopic burns over a 10 year period: • 4.869 injuries in 1000 procedures[7] (50% are due to thermal injury[2]) ○ (4.869/1000)*(50%) = 0.243% risk • (2,550,000 procedures annually) x (0.243% risk) x (10 years) = 62,080	**62,080 injuries over 10 years**
Number of minutes between preventable monopolar laparoscopic burns: • (2,550,000 procedures annually) x (0.243% risk) / (365 days)*(24 hours/day)*(60 min/hour) = every 84 minutes a patient burn occurs	**Every 90 minutes a patient is burned**

References:

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