

AWARENESS AMONG SURGEONS ON ELECTRO SURGICAL UNIT: AN ESSENSIALITY OF SURGERY

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OVERVIEW

This research study was chosen to perform Research on **The Awareness of Electro Surgical Unit Among Surgeons** – on its functionalities, benefits, features For Various Surgical Outcomes And to promote our ESU Which is A Tough Competitor for MNC ESU's

Primary data are being used in this research.

A survey was conducted on **180 Population Size of Surgeons from North Karnataka Region.**

INTRODUCTION

An ESU cuts tissue and controls bleeding caused by coagulation using high frequency electrical current. The Heating Effect of Tissue Resistance to High Density Current Leads to Tissue Destruction. Through cables and electrodes, electrical currents are sent and received. A footswitch or a hand piece switch can be used to activate the electrodes. A monopolar or bipolar mode may be used by the ESU.

Monopolar technology involves the delivery of electrical current to the patient through an active cable and electrode.

the current is dispersed back to the unit through a return electrode pad or plate, preventing concentrated heat that could result in burns.

the active and dispersive leads in monopolar mode are equivalent to two electrodes in bipolar mode, which are typically the tips of a pair of forceps or scissors

OBJECTIVE

- To Conduct a Comprehensive Analysis of Electrosurgical Unit Technology Knowledge Among Surgeons of Different Specialties.
- To Promote the Technicalities of ESU's Which are Necessary to get desired Tissue Effects and Surgical Outcomes.

RESEARCH METHODOLOGY

1. Material and Methods:

- **Study Design:** Descriptive Type
- **Setting:** It Would be Primary Research with Goals of Compiling Data from Consultation, Interview on Vessel sealer to Surgeons of Different Specialty.
- **Study Population:** Surgeons of Different Specialties
- **Sample Source:** Primary Research.
- **Study Tool:** MS Excel by Analyzing the Survey of KOL and Surgeons
- **Duration of Study:** 3 Months
- **Sample Size:** 125 Surgeons (General Surgeons, Gynecologists, Urologists, Oncologists, Gastro surgeons)
- **Population Size:** 180 Surgeons

CALCULATION USING YAMANE FORMULA

When Know the Sample Size or Your Sample Size is Finite We Can Use Yamane Formula

$$n = N / (1 + N * (e)^2)$$

Confidence Level=95%

Where N= Population Size=180

e²= Margin of Error=0.05

$$n = 180 / (1 + 180 * (0.05)^2)$$

$$n = 180 / (1 + 180 * 0.0025)$$

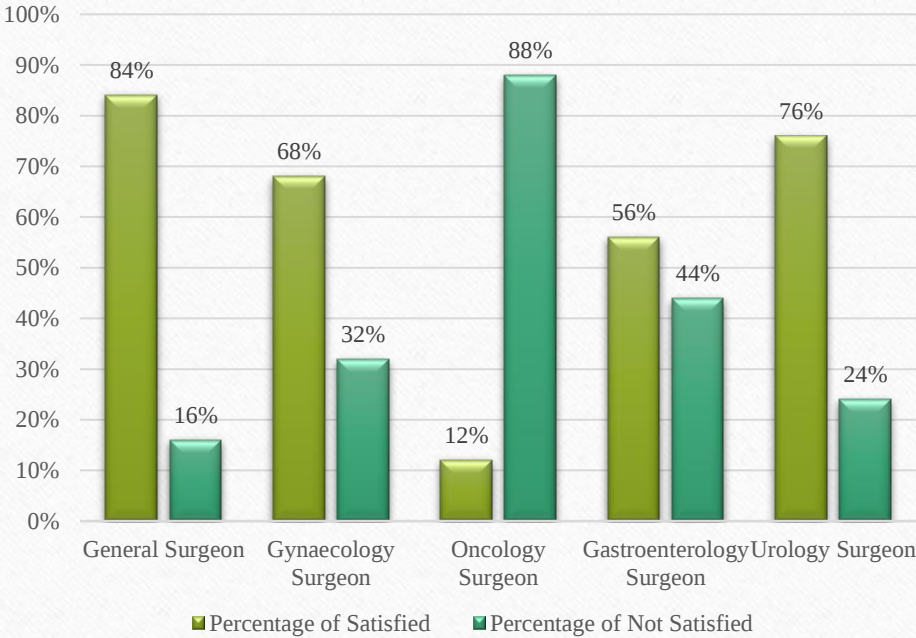
$$n = 180 / (1 + 0.45)$$

$$n = 124.67$$

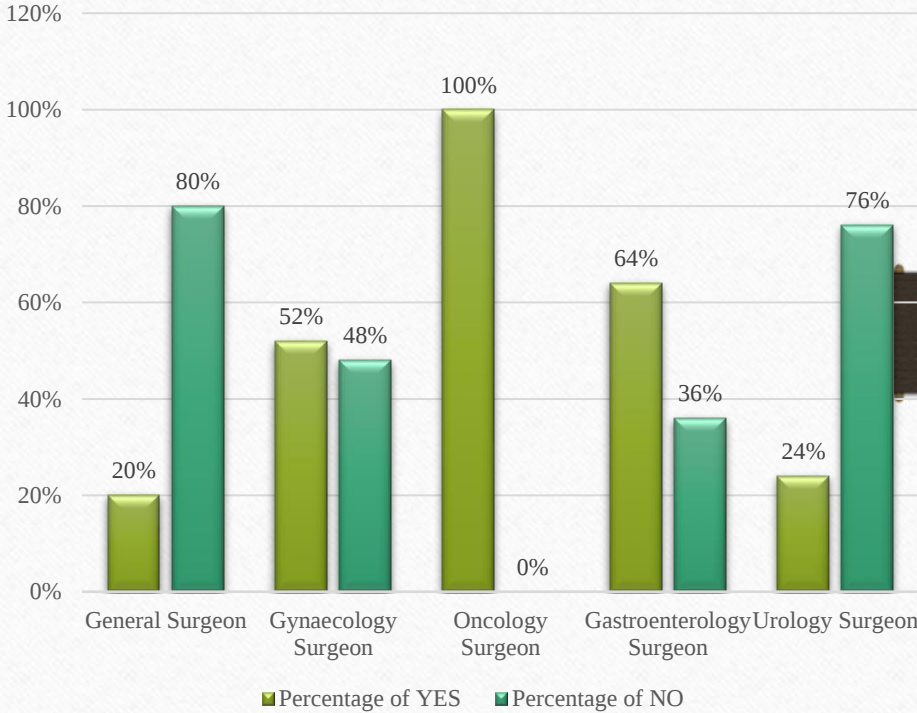
So, The Sample Size Needed for a Population of 180 with a 5% Margin of Error at 95% Confidence Interval is Approximately 125

RESULTS AND DISCUSSION

1. Surgeons of Different Specialities Satisfied and Unsatisfied with Indian ESU

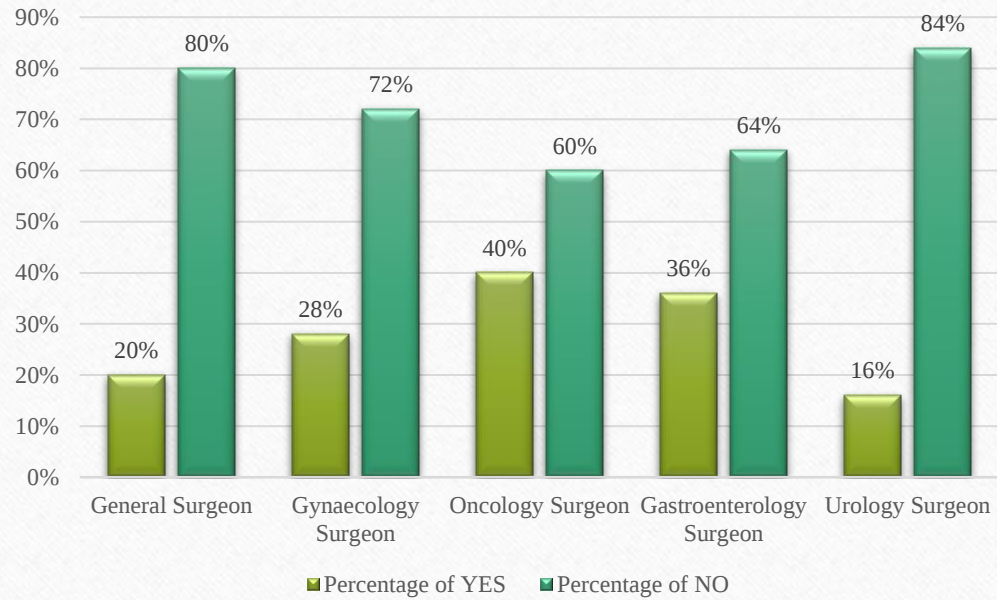


2. Surgeons of Different Speciality Prefer MNC ESU

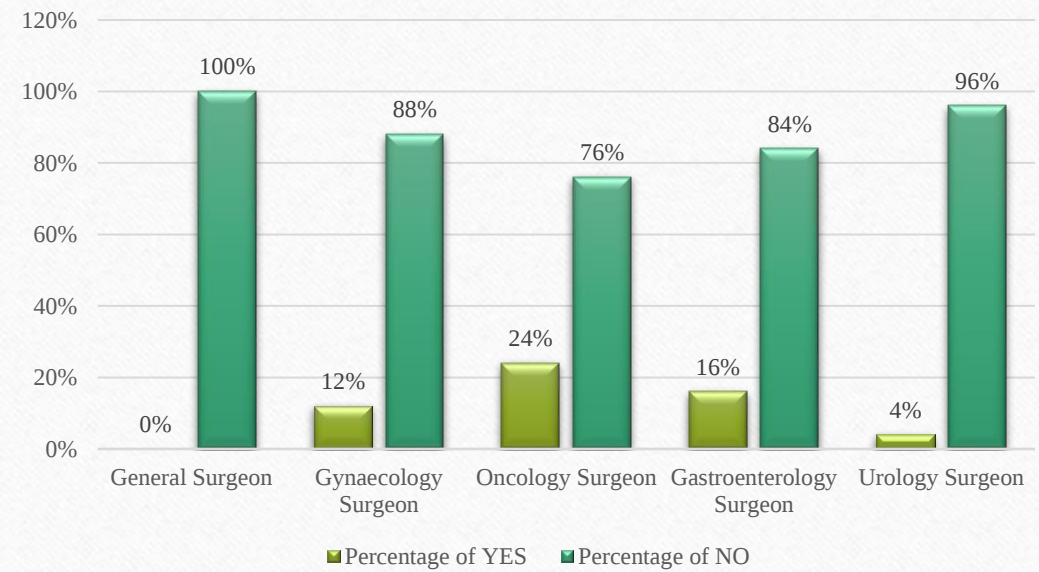


Awareness on ESU Technicalities

Awareness of Surgeons of Different Speciality on PER

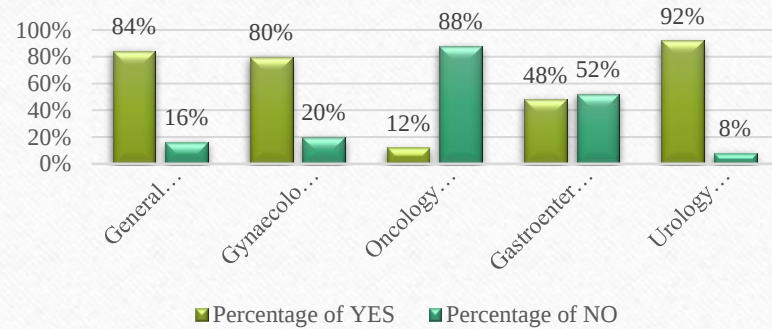


Awareness of Surgeons of Different Speciality on STST

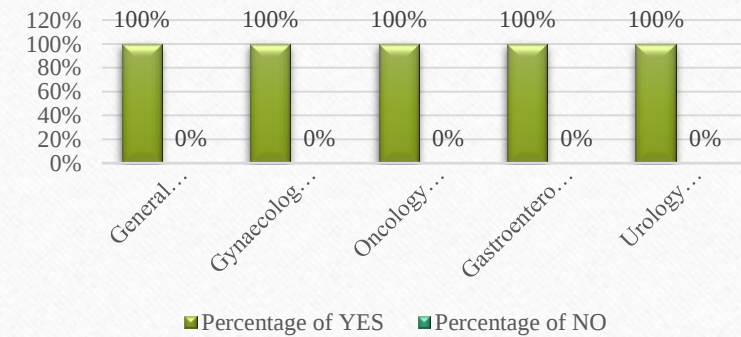


Factor Influencing the Choice of ESU Among Surgeons of Different Specialty.

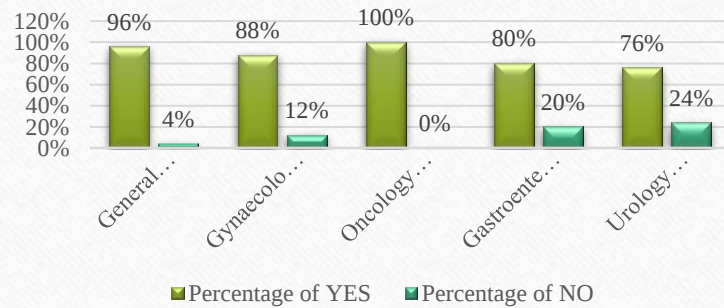
Cost



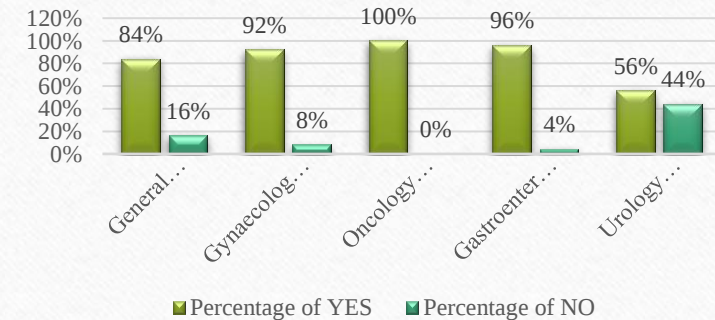
Ease of Use



Technical Specification



Brand Reputation



Conclusion

When we Observe the Graph and Response of the Surgeons of Different Specialty one by one, talking on the Each Specialty Response When We Take the Surgeons Satisfied and Unsatisfied with Performance of Indian ESU Almost Majority Each Specialty Surgeon are Satisfied Except Oncology Because the General, Gynae, Gastro, Uro All Surgery Goes with Monopolar and Bipolar Hand Instrument and Bipolar Shearer for Achieving Cut and Coagulation Effect on Tissue.

But In case of Oncology Procedures This Segment Involves Complex Surgery Procedures So Oncology Surgeons Always Prefer High End Machine like Ultrasonic Range for Surgeries. Rest All Specialty will Goes with Normal Monopolar and Bipolar Diathermy Machines.

- The Features Like PER, STST Plays an Important Role for Providing Accurate Surgical Outcomes by Delivering Precise Energy Delivery by Reading the Tissue Impedance and Providing Energy Delivery According to the Tissue Size.
 - —————
- The Market Players Has Though the Surgeons, Surgical Outcomes Achieved by only by High Power Settings and Market Players Played only on the Cost Basis Keeping the Important Features and Technicalities That has to Thought and Educated to Surgeons. By the Graph Analysis we can Clearly Observe the Knowledge Gap on ESU Among the Surgeons.
- Like PER, STST and PRE - CQM Features Allows to do Surgical Procedure at Very Low Power Settings Which Helps to Get Desired Tissue Effect Faster Patient Recovery and Better Surgical Outcomes.

THANKYOU