

## PERCEPTION OF EMERGENCY MEDICINE BY CONSULTANTS OF OTHER SPECIALITIES IN KOLKATA-INDIA

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### ABSTRACT

**Background:** Emergency Medicine is an emerging specialty in the Indian medical scenario. Our study, which is first in India and second worldwide, assessed the perception of other specialties regarding the present status, purpose and the future of Emergency Care in India. **Method:** A multicentre, questionnaire based survey was conducted amongst 106 randomly selected consultants from other specialties in four tertiary care hospitals in Kolkata, India. **Results:** 97.17% of respondents felt that the official term for the specialty should be "Emergency Medicine" (40.57%) OR "Emergency Medicine & Accident /Trauma Care" (56.60%). 93.40% of the participants perceived that at least 1 Emergency Physician per shift, registrars and 12 beds would be needed for a "fully equipped ED". 85.05% and 51.72% of the respondents felt that Resuscitation and Rapid sequence intubation should be done by Emergency physicians. Most of the respondents (96%) felt that ED physician(s) had excellent resuscitation skills. Most of the respondents (90%) felt that emergency medicine has an excellent future as an independent specialty. **Conclusion:** The principal finding our study is that Emergency Medicine, as a specialty in India, is accepted by other departments. The expectations are high and there are potential areas with significant scope of improvement. The perceived purposes and strengths provide a focus on proper training and development of Emergency Medicine, while opinions on new practices and weaknesses indicate scope of improvement. The results can contribute to decision-making for structuring proper Emergency Departments. Further similar studies on a wider scale involving other parts of India need to be done to ensure generalizability of the results.

### KEYWORDS:

Emergency Medicine.

### INTRODUCTION

Emergency Medicine is a relatively new specialty in India and is still being accepted on a wider scale. Although the specialty is practiced in many western countries for several years Emergency Medicine still remains in its infancy in India and there remain certain uncertainties regarding its future.[1,2,3] Emergency Medicine (EM) is a medical specialty dedicated to the prompt diagnosis and treatment of unforeseen illness or injury.[1,4,5] The practice of EM includes the initial evaluation, diagnosis, treatment, and disposition of any patient requiring expeditious medical, surgical, or psychiatric care. In doing so,

the Emergency Department has to communicate and liaison with a large number of departments and specialties. It is therefore important and necessary for Emergency Physicians to be aware of the views of hospital colleagues.

The purpose of our study was to try and understand how this new specialty in India is perceived by consultants from other specialties - specifically their understanding and expectations from Emergency Medicine. The study also tried to evaluate level of satisfaction with present standard of Emergency Care and their perception regarding the future of emergency medicine in India.

## MATERIALS AND METHODS

### Study design

This study was a multicentre questionnaire based survey to find out how Emergency Medicine and the Emergency Department is perceived by consultants from other hospital specialties in terms of its growth and acceptance as a specialty. The study also evaluated the respondent's expectations and satisfaction with their local Emergency Department care and the scopes for further developments.

The questions were formulated from the College of Emergency Medicine's "Definitions of the Emergency Physician"[5] and a previous study on the Perception of Emergency medicine by consultants and registrars of other specialties done by Reid *et al* (2009)[4] in United Kingdom. Likert – type scale or tick boxes were mostly used to answer the questions. A box for comments was left at the end for any additional comments.

The questionnaire covered the following:

1. General views such as purpose and need of specialty of Emergency Medicine
2. Satisfaction level with current practice of their hospital ED.
3. Future of Emergency Medicine in our healthcare system.

A pilot study with test-retest method was conducted to validate the questionnaire. Ethical considerations at every stage of a research process, including the choice of topic to research, was discussed with the Research Ethics Committee of Peerless Hospital and B.K. Roy Research Centre, Kolkata of the hospital. No names were attached to the data collection form, to allow for participant anonymity. Confidentiality of data gathered from participants was respected at all times.

### Inclusion Criteria

- Non EM working in Multispecialty hospitals in the position of Consultants only.

- Possess PG degrees/fellowships in their relevant fields.
- Hospitals with an Emergency Department(ED) recognized by Society Of Emergency Medicine in India (SEMI) were only included.

### Exclusion Criteria

- Doctors doing general practice (GP)
- Consultants working in hospitals with no ED.

### Study setting and method of data collection

The study was conducted between March 2012 and December 2013 on 106 randomly selected Consultants from four tertiary care hospitals of Kolkata. All these hospitals have a fully functional Emergency Departments that are accredited by the Society of Emergency Medicine in India (SEMI). The questionnaire was completed by the Consultants in one to one interviews with the principal investigator and the replies were kept anonymous.

## RESULTS AND DISCUSSION

A total of 106 completed questionnaires were received from the participants. 27 of the respondents were females and the rest 79 were males. Most of the respondents were > 36 years of age (n 72). The proportion of respondents from each specialty in the study is given in the table below:

Sl. No.	Specialty	No. of Doctors
1	General Medicine	20
2	Orthopaedics	15
3	Respiratory Medicine	4
4	Anaesthetists	21
5	Cardiology	4
6	Neurology	6
7	Nephrology	1
8	ENT	5
9	General Surgery	6
10	Critical Care	24
11	Radiology	5

The responses were analysed under the following headings to assess the perception among our colleagues regarding Emergency Medicine as a

specialty, their opinion regarding structure and function of an ideal department, satisfaction level with reference to the Emergency Department(s) in their hospital and what they thought about future prospect of this new specialty.

**Nomenclature**

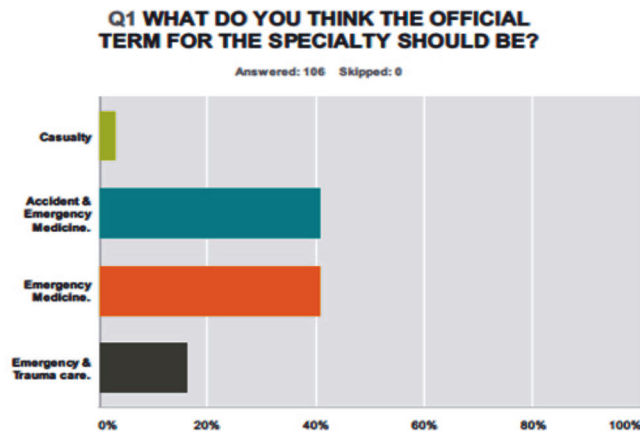
Traditionally, Emergency departments in India are called “Casualty” but recently, the terms “Emergency Medicine” and “Emergency Department” were introduced. There is, still today, no specific nomenclature of our specialty in India. Though all the training programs in India and the Medical Council of India use the name “Emergency Medicine” most of the government and some of the private sector organisations still use the term “Casualty”, or “Emergency”. In our survey, we included questions on nomenclature for the specialty (Diagram 1). Most of the respondents were of the opinion that the official term of the specialty should be “Emergency Medicine” (40.57%) or “Accident

and Emergency Medicine” (40.57%). It should, however, be highlighted that the study hospital departments were called the “Emergency Department” at the time of this study and that could have been the reason that the previously used term in India “Casualty” (2.83%) was not a major choice. Our result closely correlates with the finding of the previous study done by Reid *et al* (2009)[4] in United Kingdom. Our findings points out the need to resolve the current situation where the specialty has several alternative names.

**Structure and functions of the Specialty**

There is no guideline on the ideal structure of an Emergency Department in India, and hence we included this topic in our survey. Majority were of the opinion that the Emergency Department should be completely equipped and have round the clock coverage by a qualified consultant and registrars trained in the specialty. 93.40% voted for a fully

Diagram 1



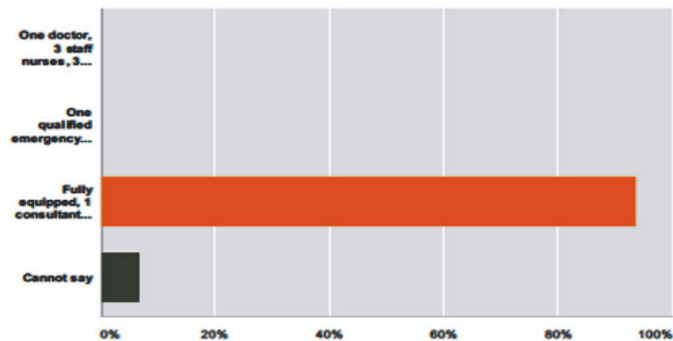
Answer Choices	Responses
Casualty	2.83% 3
Accident & Emergency Medicine.	40.57% 43
Emergency Medicine.	40.57% 43
Emergency & Trauma care.	16.04% 17
<b>Total Respondents: 106</b>	

Most of the respondents were of the opinion that the official term of the specialty should be Accident and emergency medicine or Emergency Medicine (40.57%).  
The previously used term in India 'Casualty' was not major choice.

Diagram 2

**Q2 IDEALLY HOW DO YOU THINK AN ED SHOULD BE STAFFED?**

Answered: 106 Skipped: 0



Answer Choices	Responses
One doctor, 3 staff nurses, 3 beds, 1 monitor and a dressing room.	0% 0
One qualified emergency physician, 5 beds, 5 staff nurses, 3 monitors	0% 0
Fully equipped, 1 consultant emergency physician per shift, registrars and 12 beds.	93.40% 99
Cannot say	6.60% 7
Total Respondents: 106	

The majority were of the opinion now that a Emergency Department should be completely equipped and have a round the clock cover by a consultant or registrar

equipped department with at least 1 consultant Emergency Physician per shift, registrars and 12 or more beds. (Diagram 2)

The respondents were of divided opinion when asked if triaging system in India would be beneficial and 17.9% could not say what Emergency triaging was and how it actually works. Almost 19.8% were of the opinion that this would be a failure in India considering the cultural and social grounds where all patients feel that they need priority care, and stable patients if made to wait after categorization will not accept triaging. 30% of the respondents could not give an opinion on triage. (Diagram 14, 15)

The majority of the responders (63.2%) felt that the presence of a complete trauma team in Emergency Department was vital while handling major trauma. Such a trauma team should be led by Emergency physician (100%) along with Anaesthetist, General Surgeon and Orthopaedic surgeon (63.2%). However, 30.19 % were of the opinion that Emergency Physician with relevant specialty was enough to manage major trauma. The majority of

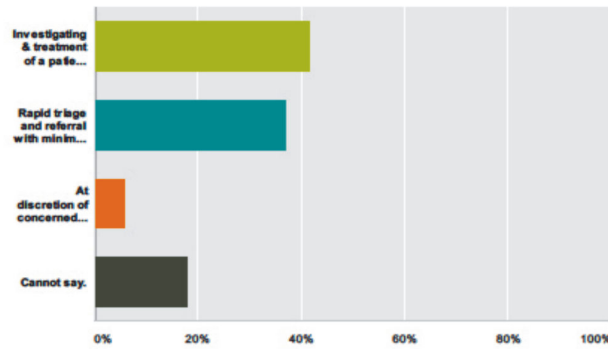
the responders (52.8%) were of the opinion minor trauma could be managed by any trained individual; whereas, 36.79% opined that it should be done by an Emergency Physician. (Diagram 8, 9)

In regards to function of the department, the opinion poll yielded several interesting results.

It was interesting to notice that a lot of consultants were not well versed with the abbreviation of "RSI". Here about 40% of the responders thought any trained individual could do a RSI. After they had answered what RSI was, more than 50% percent felt that the Emergency Physician was the right person to do it. Only, 13% felt that only an anaesthetist was the right person to do an RSI. The majority (86%) of the respondents thought that the code blue team should be from the emergency department(ED).13 respondents (12%) felt any trained individual could be a member of the team and 3 respondents did not know what a code blue team was. Even though the majority of respondents (73.5%) felt that a FAST scan should be done by a emergency physician many also thought that it was operator dependent. 53 respondents (50%) were of

**Q14 EM TRIAGING MEANS**

Answered: 106 Skipped: 0



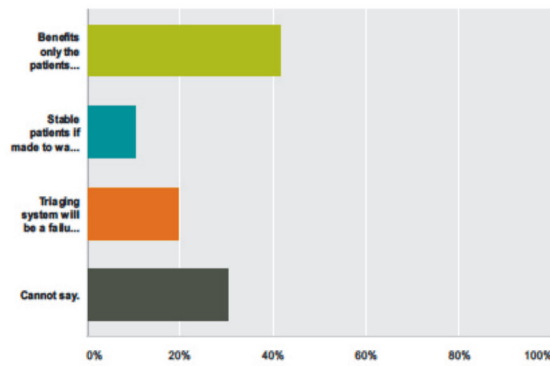
Answer Choices	Responses
Investigating & treatment of a patient until a working diagnosis is made & the patient is stable.	41.51% 44
Rapid triage and referral with minimum investigations and treatment.	36.79% 39
At discretion of concerned speciality.	5.66% 6
Cannot say.	17.92% 19
<b>Total Respondents: 106</b>	

The opinion of many respondents were divided about EM triaging. They were of the opinion that it depends on the type of patient coming to the emergency department. 17.9% could not say what EM triaging was and how it actually works.

**Diagram 15**

**Q15 WILL THE TRIAGING SYSTEM BE BENEFICIAL IN AN ED IN INDIA**

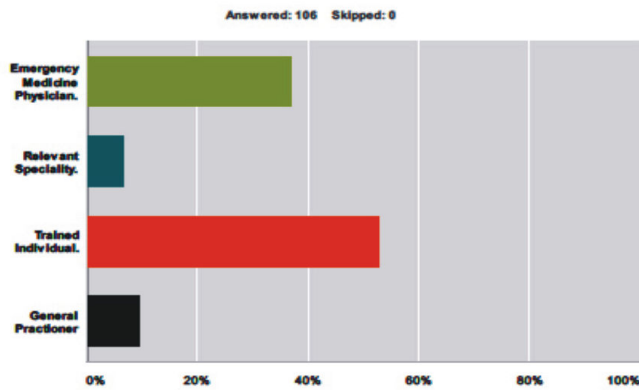
Answered: 106 Skipped: 0



Answer Choices	Responses
Benefits only the patients requiring emergent medical attention.	41.51% 44
Stable patients if made to wait after categorization will not accept triaging.	10.38% 11
Triage system will be a failure in India.	19.81% 21
Cannot say.	30.19% 32
<b>Total Respondents: 106</b>	

The respondents were of divided opinions as to if triaging system in India will be beneficial. Almost 20% of the respondents were of the opinion that this would be a failure in India and 30% of the respondents could not give an opinion.

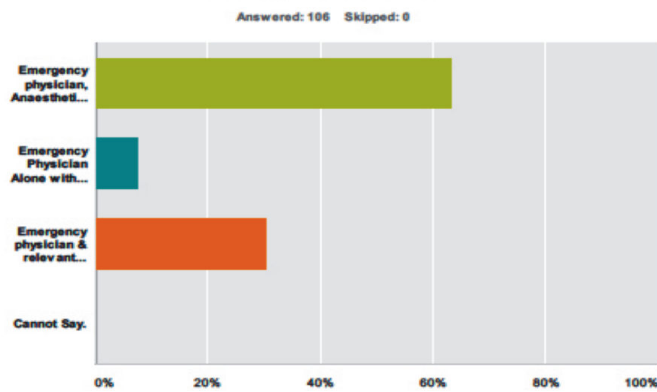
**Diagram 8**  
**Q8 BY WHOM DO YOU THINK A CARE FOR MINOR TRAUMA SHOULD BE GIVEN**



Answer Choices	Responses
Emergency Medicine Physician.	36.79% 39
Relevant Speciality.	6.60% 7
Trained Individual.	52.83% 56
General Practitioner	9.43% 10
<b>Total Respondents: 106</b>	

The majority of responders were of the opinion (52.8%) that the care of a minor trauma can be given by any trained individual.36.79% were of the opinion that it should be done by the Emergency physician.

**Diagram 9**  
**Q9 THE INITIAL TEAM OF MAJOR TRAUMA SHOULD CONSIST OF:**



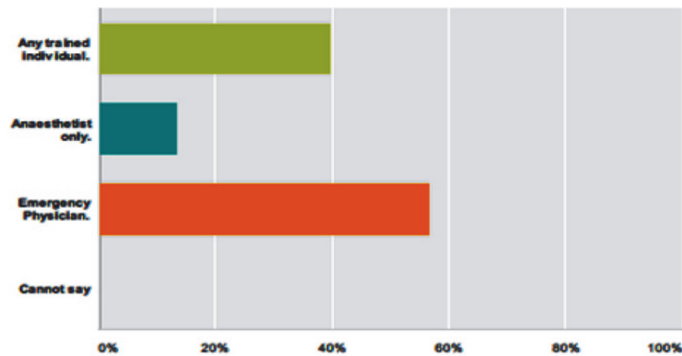
Answer Choices	Responses
Emergency physician, Anaesthetist, Gen.Surgery, Orthopedic surgeon.	63.21% 67
Emergency Physician Alone with trained staff and Registrar.	7.55% 8
Emergency physician & relevant speciality consultant.	30.19% 32
Cannot Say.	0% 0
<b>Total Respondents: 106</b>	

The majority of responders were of the opinion (63.2%) that in case of a major trauma the presence of a complete trauma team was vital. 30.19% of the responders were of the opinion that the emergency physician with the relevant speciality was enough to manage a major trauma.

Diagram 3

**Q3 RAPID SEQUENCE INTUBATION in ED SHOULD BE CARRIED OUT BY**

Answered: 106 Skipped: 0



Answer Choices	Responses
Any trained individual.	39.62% 42
Anaesthetist only.	13.21% 14
Emergency Physician.	56.60% 60
Cannot say	0% 0
<b>Total Respondents: 106</b>	

Here about 40% of the responders thought any trained individual could do a RSI. After they had answered and asked upon many did not know what RSI actually was and the drugs and the dosages used in it but more than 50% percent felt that the Emergency Physician was the right person to do it. About 13% felt that only a anaesthetist was the right person to do an RSI

the opinion that the thrombolysis should be done in the ICCU only and 53(50%) were of the opinion that it should be done in the emergency department(ED). Only 4% felt that thrombolysis should be done only by a cardiologist whereas most of the others thought that Emergency Physician should do it. When asked about head injury observation, majority of the respondents (78%) responded in favour of neurosurgery ward under neurosurgery. Majority of the responders (>77%) felt that EGDT in sepsis should be achieved in the ED itself and about 15% said that let the relevant consultant decide.

In regards to the disposition of patients from the Emergency department>42% responders wanted the patient to be shifted immediately after stabilization and 37.74% responders thought that it should be as per the ED physician's discretion.

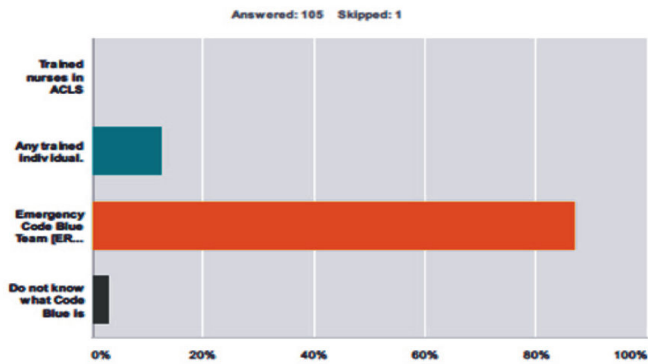
Our survey found that Emergency Medicine as a specialty is gaining greater acceptance and popularity in this country. The majority of the respondents voted

for a fully equipped department with 24 hour coverage by trained Emergency Physicians which can contribute to decision-making for emergency departments and further development of the specialty. The respondents were also supportive of a number of areas of practice by Emergency Physicians such as diagnostic ultrasound (FAST), resuscitation, code blue team, major trauma and rapid sequence intubation. However, there were certain areas like thrombolysis and Neuro – observation where there were mixed views by the respondents. These constructive feedbacks have helped us understand the purpose, strengths and weaknesses of our specialty and provide a focus for training and development. (Diagram 1 to 9)

### Satisfaction level of local Emergency Departments

Our study also surveyed the satisfaction of different aspects of local Emergency Departments care on a 5-point Likert scale ranging from “excellent” to “poor”.

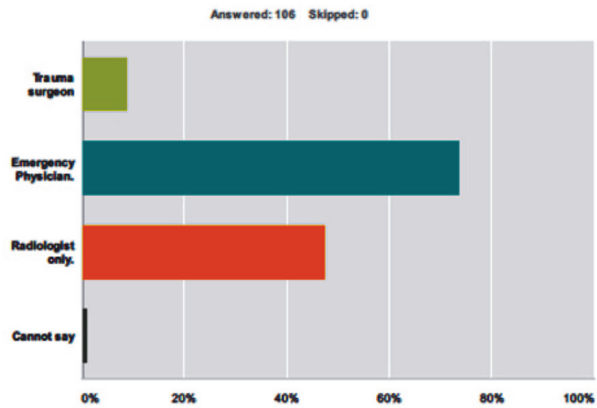
**Diagram 4**  
**Q4 CODE BLUE TEAM SHOULD CONSIST OF**



Answer Choices	Responses
Trained nurses in ACLS	0% 0
Any trained individual.	12.38% 13
Emergency Code Blue Team [ER doctor, nurses and trained paramedics].	86.67% 91
Do not know what Code Blue is	2.86% 3
<b>Total Respondents: 105</b>	

The majority(86%) of the respondents thought that the code blue team should be from the emergency department(ED).13 respondents (12%) felt any trained individual could be a member of the team and 3 respondents did not know what a code blue team was.

**Diagram 5**  
**Q5 DIAGNOSTIC FAST SCAN IN TRAUMA AT ANY GIVEN TIME OF THE DAY:**



Answer Choices	Responses
Trauma surgeon	8.49% 9
Emergency Physician.	73.58% 78
Radiologist only.	47.17% 50
Cannot say	0.94% 1
<b>Total Respondents: 106</b>	

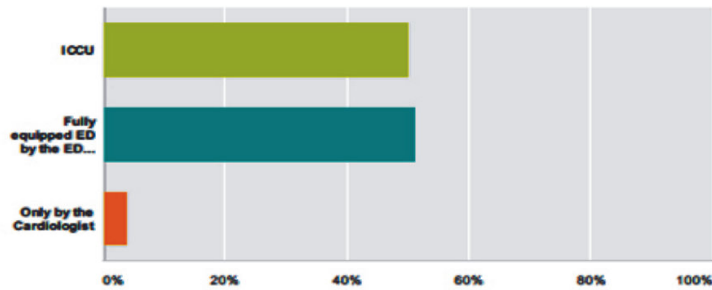
Eventhough the majority of respondents(73.5%) felt that a FAST scan should be done by a emergency physician many also though that it was operator dependent.Almost 47% felt is should be done by the radiologist only. 9 respondents thought that the trauma surgeon was the best person and 1 respondent did not know what a FAST scan was.



Diagram 6

**Q6 WHERE SHOULD THE THROMBOLYSIS OF A PATIENT PRESENTING TO ED WITH ACUTE MYOCARDIAL INFARCTION WHO MEETS ALL THE CRITERIA FOR THE THROMBOLYSIS IS DONE?**

Answered: 106 Skipped: 0



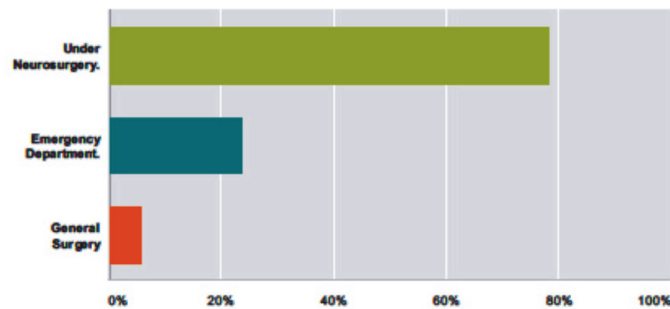
Answer Choices	Responses
ICCU	50% 53
Fully equipped ED by the ED physician if needed.	50.94% 54
Only by the Cardiologist	3.77% 4
<b>Total Respondents: 106</b>	

53 respondents(50%) were of the opinion that the thrombolysis should be done in the ICU only and 53(50.94%) were of the opinion that it should be done in the emergency department(ED) if needed. About 4% felt that it should be done only by a cardiologist.

Diagram 7

**Q7 WHERE DO YOU THINK A PATIENT WITH MODERATE HEAD INJURY SHOULD BE UNDER OBSERVATION?**

Answered: 106 Skipped: 0



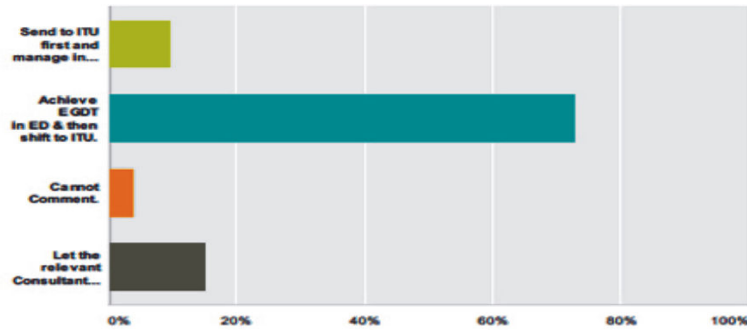
Answer Choices	Responses
Under Neurosurgery.	78.30% 83
Emergency Department.	23.58% 25
General Surgery	5.66% 6
<b>Total Respondents: 106</b>	

83 respondents (78%) responded in favour of neurosurgery. some felt if the initial CT was normal the patient could be observed in the emergency department(ED)(23.5%).

Diagram 10

**Q10 DO YOU THINK THAT A PATIENT COMING TO ED IN SEPTIC SHOCK/SEPTICAEMIA SHOULD BE ADMITTED IN ITU ONLY AFTER EGD(EARLY GOAL DIRECTED THERAPY IN SEPSIS):**

Answered: 106 Skipped: 0



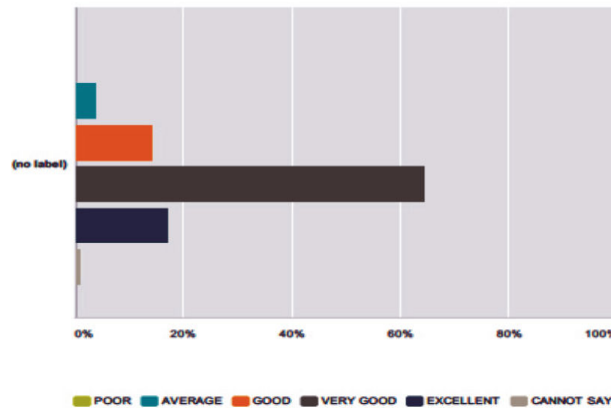
Answer Choices	Responses
Send to ITU first and manage in ITU.	9.43% 10
Achieve EGD in ED & then shift to ITU.	72.64% 77
Cannot Comment.	3.77% 4
Let the relevant Consultant Decide.	15.09% 16
<b>Total Respondents: 106</b>	

72.64%(77) responders were of the opinion that in a patient coming to ED in septic shock the goal should be to achieve EGD in the ED as early as possible and then shift the patient to ITU under the relevant speciality.

Diagram 16

**Q16 HOW DO YOU SCORE YOUR ED RESUSCITATION SKILLS:**

Answered: 106 Skipped: 0



	POOR	AVERAGE	GOOD	VERY GOOD	EXCELLENT	CANNOT SAY	Total	Average Rating
(no label)	0%	3.77%	14.15%	64.15%	16.98%	0.94%	106	3.97
	0	4	15	68	18	1		

Almost 81% of responders rated the ED’s resuscitation skills as excellent or very good. (Diagram 16) 83% of the consultants rated the treatment of their patients in the Emergency department as excellent or very good.( Diagram 21) The other areas

that were highly appreciated were management of sepsis patients (72.64%) (Diagram 10) and trauma resuscitation skills (93%). The respondents also felt that Emergency Physicians were very good in hands