

Choosing Wisely Campaign: Perspectives of Emergency Physicians of Pakistan

Sanniya Khan Ghauri¹, Tabinda Abbasi², Abdus Salam Khan³,
Khawaja Junaid Mustafa⁴, Faiza Shah⁵, Dania Dawood⁶

Authors Affiliation

Dept of Emergency
Medicine
Shifa International
Hospital, Islamabad^{1,3,4}

Poonch Medical College,
Rawalakot Azad Kashmir^{2,5}

Ayub Medical College,
Abottabad⁶

Correspondence to:

Tabinda Abbasi
Poonch Medical College,
Rawalakot Azad Kashmir
drtabinda.davd@gmail.com

ABSTRACT

OBJECTIVE

To assess perspectives of Pakistani emergency physicians regarding the American College of Emergency Physician's (ACEP) Choosing Wisely recommendations.

METHODOLOGY

Physicians working in the emergency department of three hospitals in Pakistan were included in this cross-sectional study. The interviewer-administered study questionnaire was formulated as per ACEP's Choosing Wisely recommendations for emergency physicians. The study questionnaire was validated and informed written consent was obtained from all the study participants. Ethical approval was taken from the ethical review board of Poonch Medical College, Azad Kashmir, Pakistan. Data was analyzed by SPSS v23.0 and was presented in tables and charts.

RESULTS

Out of 70 emergency physicians, 63 respondents were included in the study (response rate = 90%). More than two-thirds of the physicians (68.3%) had never heard of Choosing Wisely recommendations and more than three-quarters (77.8%) had never discussed it with anybody. Eighteen physi-

cians (28.6%) who knew about it had heard about it from their colleagues. Physician's beliefs about Choosing Wisely campaign were as follows: 28.6% believed it will strongly increase patient safety, 39.7% believed it will somewhat increase the quality of patient care, and 57.1% believed it will have no impact on physician's salary. The most important reason (38.1%) behind ordering a low-value investigation is due to fulfillment of patients request.

CONCLUSION

This study identified emergency physicians' low level of familiarity with Choosing Wisely recommendations. With the ever-increasing national health cost, issues of drug resistance and hospital-acquired infections, it is important to optimize health care and expenditure. Educating physicians and patients with Choosing Wisely recommendations may decrease unnecessary investigations and procedures, overuse of antibiotics and improve doctor-patient communication.

KEYWORDS

Choosing Wisely, Emergency Physician, Pakistan

INTRODUCTION

Choosing Wisely Campaign (CWC), initiated in 2012 by the American Board of Internal Medicine Foundation and Consumer Reports, is targeted at questioning all those investigations and procedures that are deemed unnecessary in patient care in a particular specialty. ⁽¹⁾ This physician-led campaign was started to reduce practices that are not backed by evidence, useless to the patient and to the physician in terms of decision making and to decrease economic cost and harms of unnecessary investigations and procedures. ⁽²⁾ The target was to identify practices that have no clinical value

in modern medicine and to cut down the overuse of medical resources. Choosing Wisely has been adopted in around 20 countries of the world including Australia, Canada and many European countries that are adding to the recommendations with respect to their local settings. ⁽³⁻⁶⁾ This initiative was also a success in the United States with over 70 societies including American College of Emergency Physicians (ACEP) joining the campaign and bringing forth recommendations to start a conversation between the patient and treating doctor regarding low-value procedures and investi-

ACEP's Recommendations for Choosing Wisely Campaign	
1.	Avoid computed tomography (CT) scans of the head in emergency department patients with minor head injury who are at low risk based on validated decision rules
2.	Avoid placing indwelling urinary catheters in the emergency department for either urine output monitoring in stable patients who can void, or for the patient or staff convenience
3.	Don't delay engaging available palliative and hospice care services in the emergency department for patients likely to benefit
4.	Avoid antibiotics and wound cultures in emergency department patients with uncomplicated skin and soft tissue abscesses after successful incision and drainage and with adequate medical follow-up.
5.	Avoid instituting intravenous (IV) fluids before doing a trial of oral rehydration therapy in uncomplicated emergency department cases of mild to moderate dehydration in children
6.	Avoid CT of the head in asymptomatic adult patients in the emergency department with syncope, insignificant trauma, and a normal neurological evaluation
7.	Avoid CT pulmonary angiography in emergency department patients with a low pretest probability of pulmonary embolism and either a negative Pulmonary Embolism Rule-Out Criteria (PERC) or a negative D-dimer
8.	Avoid lumbar spine imaging in the emergency department for adults with non-traumatic back pain unless the patient has severe or progressive neurologic deficits or is suspected of having a serious underlying condition (such as vertebral infection, cauda equina syndrome, or cancer with bony metastasis)
9.	Avoid prescribing antibiotics in the emergency department for uncomplicated sinusitis
10.	Avoid ordering CT of the abdomen and pelvis in young otherwise healthy emergency department (ED) patients (age <50) with known histories of kidney stones or ureterolithiasis, presenting with symptoms consistent with uncomplicated renal colic.

Table 1: ACEP's recommendations for Choosing Wisely Campaign

gations. ⁽⁷⁾ The low value is described as the benefit achieved with regards to the cost spent on a procedure or investigation. These conversations are intended to come to shared decision-making regarding patient care and improve practices of the treating physician. The ten ACEP recommendations (2014) for Choosing Wisely campaign are presented in Table 1. ⁽⁸⁾

In Pakistan, where healthcare is costly and there is no standardization of care in various emergency departments, steps are required to cut down the unnecessary practice and to prevent harm such as catheter-associated urinary tract infections (CAUTI), urinary tract infection (UTI), antibiotic resistance, unnecessary CT scans, etc. In this study, we aimed to assess the perspectives of emergency physicians working in Pakistan regarding ACEP's Choosing Wisely recommendations.

METHODS

All the doctors including residents, medical officers, and consultants working in the emergency department of Shifa International Hospital, Islamabad, Pakistan Ordnance Factories Hospital, Wah Cantt and Lady Reading Hospital, Peshawar were included in this cross-sectional study. The data was collected by the interviewer-administered questionnaire which contained demographic variables and questions to observe the physicians' behavior associated with choosing wisely recommendations. The study questionnaire was formulated as per a previous relevant study and validated by two epidemiologists. ⁽⁷⁾ Cronbach's alpha test was done to check the internal consistency of the study questionnaire, and for all the Likert scale questions the Cronbach's alpha value was above 0.70 which

means a high level of internal consistency. The data was collected from June to October 2018. Informed consent was secured from each participant. Ethical approval was obtained from the Ethical Review Board of Poonch Med-

ical College, Rawalakot.

Categorical variables were presented as frequencies and percentages and the continuous variables were presented as mean \pm SD. The analysis was performed using the

Characteristics	N (%)
Age in years (mean \pm SD)	29.24 \pm 5.74
Gender	
○ Male	50 (79.4)
○ Female	13 (20.6)
Levels of doctors	
○ Medical officer	25 (39.7)
○ Resident	32 (50.8)
○ Registrar	3 (4.8)
○ Consultant/ Specialist	3 (4.8)
Years of employment	
○ One year	41 (65.1)
○ Two years	12 (19.0)
○ More than two years	10 (15.9)

Table 2: Demographics of participants

Statistical Package for Social Science (SPSS) version 23.0 (IBM, Armonk, NY, USA)

RESULTS

Out of 70 emergency physicians, 63 responded to the study questionnaire (response rate = 90.0%). The mean age of all respondents was 29.24 \pm 5.74 years (median age = 28 years). Resident physicians were 32 (50.8%) formed the largest cohort, as seen in Table 2.

Less than one-third, 18 (28.6%) of the physicians heard of Choosing Wisely campaign. Interestingly, 11 (44.0%) of the medical officers had heard of it whilst none of the consultants ever heard of it. None of the registrars or consultants had ever participated in the ACEP cost-effective care task force. Information regarding CWC most frequently came from colleagues, 18 (28.6%). (Table 3).

About 29% of physicians believed CWC will strongly increase patient safety and 30% of them believed it will strongly decrease ED use of laboratory testing. Thirty-six (57.1%) physicians believed CWC will have no impact on the salary of the physicians. (Figure 1)

Availability and use of palliative care and consultative services in the ER departments were presented in Figure 2.

More than half of the physicians have never discussed Choosing Wisely campaign in previous one year during academic conferences (50.8%) and during operational meetings (55.6%). Physicians' discussion about other items e.g. CT imaging, UTI, CAUTI, palliative care, skin abscess, antibiotic use, and management of pediatric dehydration were presented in table 4.

Question and response	N (%)
I have heard of choosing wisely campaign	
○ Yes	18 (28.6)
○ No	43 (68.3)
○ Not sure	2 (3.2)
I participated in the ACEP cost-effective care task force	
○ Yes	5 (7.9)
○ No	58 (92.1)
I recall hearing about choosing wisely campaign	
○ Yes	23 (36.5)
○ No	40 (63.5)
I heard about CWC from	
○ Colleagues	18 (28.6)
○ Speakers at an academic conference	6 (9.5)
○ Articles in an academic journal	3 (4.8)
○ Newsletters from professional societies	3 (4.8)
○ Media (e.g. newspapers, television, radio)	3 (4.8)
○ Not sure	17 (27.0)
○ Others	13 (20.6)
I have discussed CWC with friends and family	
○ Never	49 (77.8)
○ Rarely	5 (7.9)
○ Occasionally	5 (7.9)
○ A moderate amount of time	3 (4.8)
○ A great deal	1 (1.6)

Table 3: Awareness and discussion of choosing wisely survey.

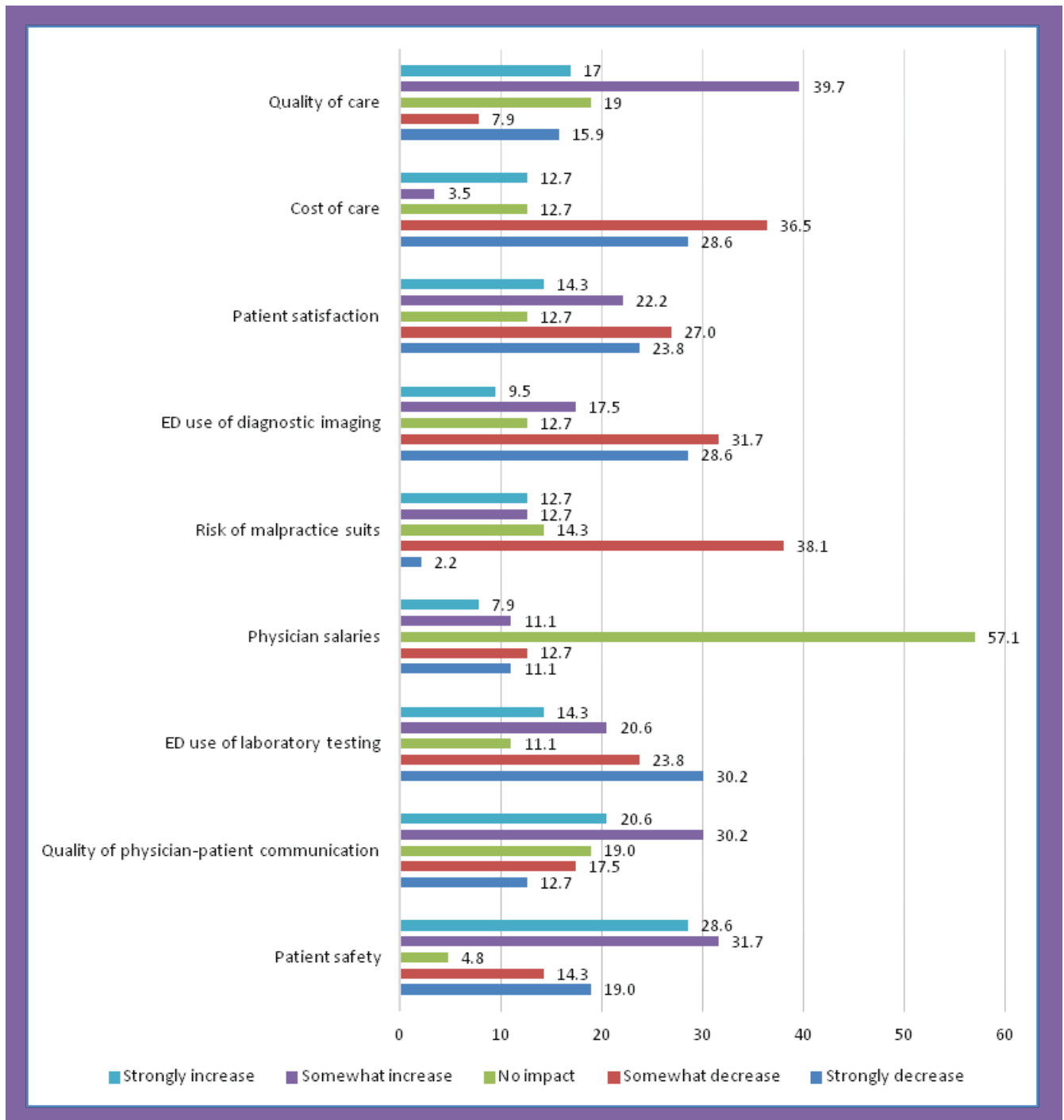


Figure 1: Respondents' belief on the impact of choosing wisely in emergency medicine practice.

Items	Never (%)	Rarely (%)	Occasionally (%)	A moderate amount (%)	A great deal (%)
During academic conferences (Grand rounds, Morbidity & Mortality, etc.)					
The choosing wisely campaign	50.8	14.3	19.0	9.5	6.3
Decision rules for CT imaging	11.1	15.9	20.6	36.5	15.9
Reducing use of urinary catheter	12.7	14.3	28.6	31.7	12.7
Urinary catheter-associated infections	12.7	11.1	15.4	27.0	23.8
Palliative or hospital care	15.9	15.9	31.7	14.3	22.2
Management of skin abscess	17.5	23.8	28.6	9.5	20.6
Antibiotic stewardship	17.5	14.3	30.2	22.2	15.9
Management of pediatric dehydration	19.0	20.6	20.6	23.8	15.9
During operational meetings (Quality improvement, Patient safety, etc.)					
The choosing wisely campaign	55.6	9.5	14.3	14.3	6.3
Decision rules for CT imaging	7.9	20.6	22.2	33.3	15.9
Reducing use of urinary catheter	15.9	14.3	28.6	31.7	9.5
Urinary catheter-associated infections	12.7	12.7	23.8	33.3	17.5
Palliative or hospital care	15.9	14.3	28.6	22.2	19.0
Management of skin abscess	17.5	17.5	27.0	23.8	14.3
Antibiotic stewardship	14.3	9.5	20.6	39.7	15.9
Management of pediatric dehydration	19.0	15.9	28.6	27.0	9.5

Table 4: Items discussed by the Physicians in the last 12 months

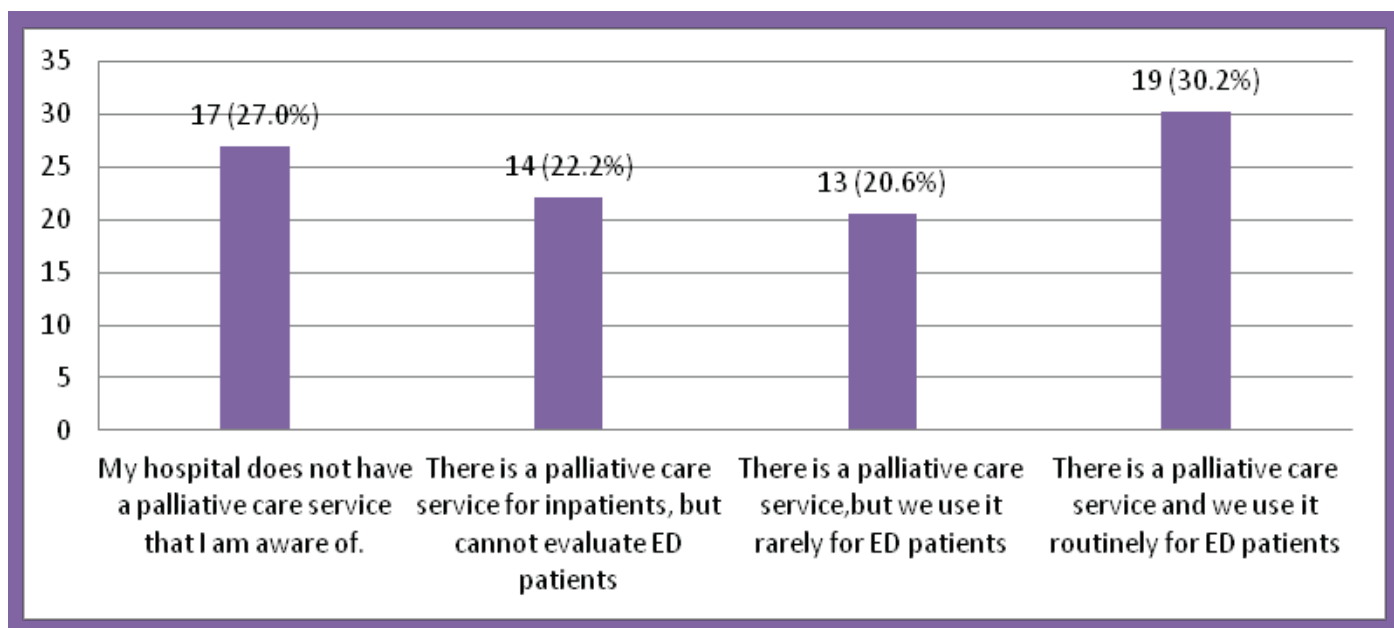


Figure 2: Availability and use of palliative care consultative services in the ER department

Forty-six percent of physicians in the studied medical colleges did not ever receive training and education on how patients may benefit from palliative care. (Figure 3). The most important reason for giving low-value test was due to patients request according to 24 (38.1%) of the physicians. Another important reason was ED over-crowding, observed by 23 (36.5%) of the physicians. (Figure 4).

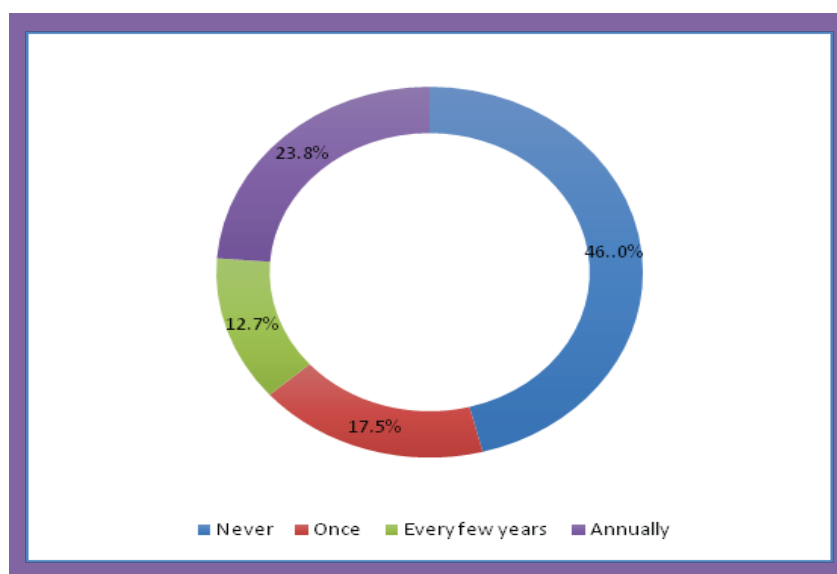


Figure 3: Training and education regarding the benefit of palliative care

DISCUSSION

Our study signifies nonexistent knowledge about CWC as even after 8 years of its launch, still, a vast majority of physicians of all cadres practicing in our departments are unaware of its recommendations. It is in stark contrast with the level of awareness amongst residents ⁽⁷⁾ (62.7% knew at least 4 recommendations) and departmental chairs of emergency medicine (80% knew about CWC and 55% knew at least one recommendation) working in the

US. ⁽⁹⁾ One of the reasons could be that most of the surveyed participants were junior residents and medical officers working in the departments for less than two years. Another important factor could be that most departments follow Royal College of Emergency Medicine (RCEM) or National Institute of Clinical Excellence (NICE) guidelines so they are not well versed about recommendations stated by ACEP. However, this

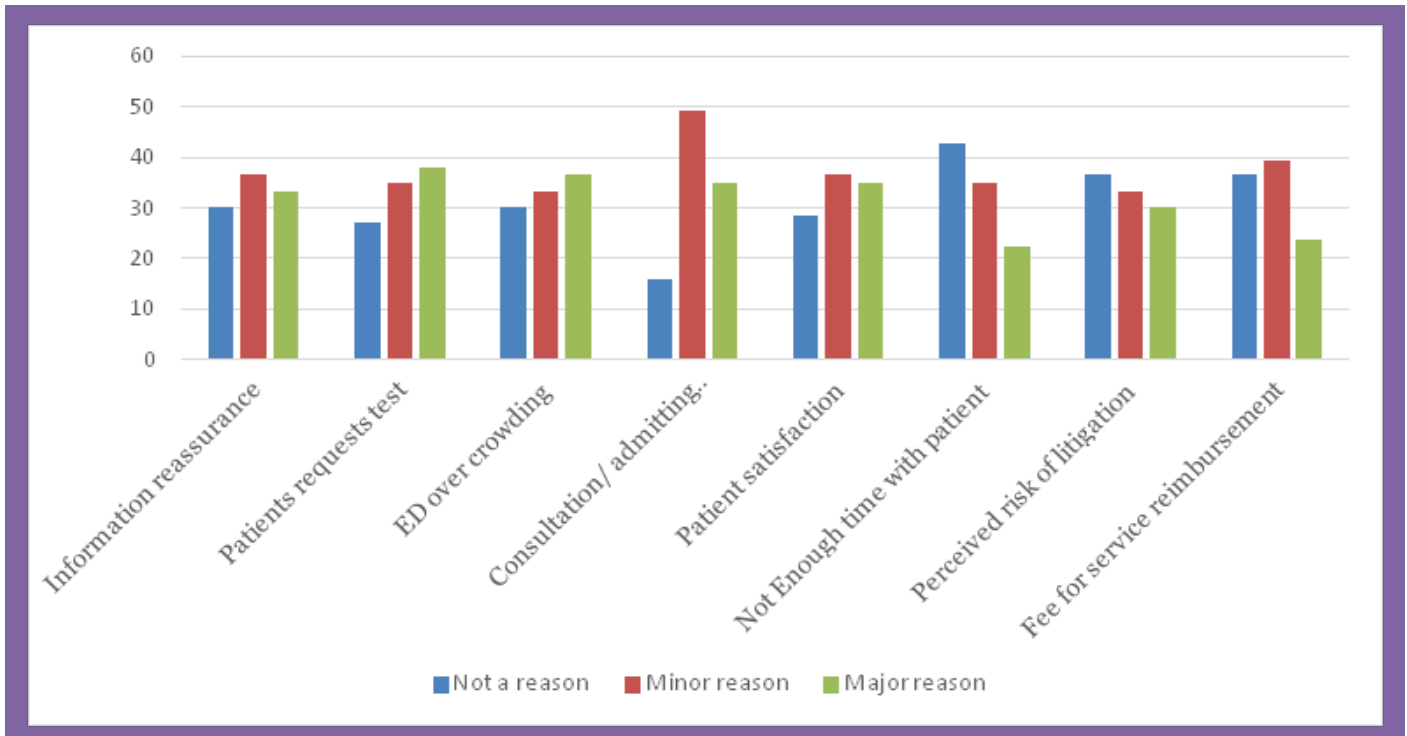


Figure 4: Reasons for ordering low-value service

campaign empowers the patient-doctor communication so it could be an added advantage if applied in our departments. This campaign also gives the liberty to make recommendations according to our local needs and setups so that we can frame which common practices are not required such as ordering WIDAL test for diagnosing typhoid, antibiotics for diarrheal illnesses, etc. Joining this campaign would enable emergency physicians to create local recommendations for Pakistani emergency departments which would be a much-needed change. Studies show that an educational intervention regarding CWC can significantly enhance the knowledge of emergency residents.⁽¹⁰⁾

Once physicians were informed about the first five recommendations of CWC, there was a strong consensus that these practices would enhance patient safety, improve patient-doctor communication and decrease the costs of imaging in ED. After implementation of CWC recommendations, there was a significant decrease in two investigations such as imaging in headaches and cardiac testing.⁽¹¹⁾ Another study conducted in New England reported that almost 60% of EDs had implemented an intervention regarding low use of imaging with head CT in minor head trauma and CTPA in case of low risk of pulmonary embolism.⁽¹²⁾ Although litigation due to medical negligence is not very common practice in Pakistan, physicians believed that providing evidence-based care through CWC recommendations would help in decreasing litigation.

This study also signifies the early intervention of palliative services which although scarcely available throughout the country, can be utilized in managing terminally ill patients. Awareness about CAUTI, antibiotic stewardship, diagnostic use of CT scan, etc. is also deficient which can be greatly improved by distributing CWC educational literature. In Canada, there is an initiative to begin teaching about resource stewardship from medical school so that the upcoming doctors are attentive to appropriate utilization.⁽¹³⁾

A main aspect of CWC is to address the issue of the myriad of tests being ordered unnecessarily in emergency departments. Our study showed that most physicians believed that it was due to patient satisfaction and their requests that such investigations were ordered. A recent study also showed similar results where patient expectations were the leading cause behind ordering low-value services.⁽¹⁴⁾ Another study in the US stated that overtreatment was mostly due to fear of malpractice suits (84.7%), followed by patient pressure/ request (59.0%).⁽¹⁵⁾ It has been quoted that if a patient were provided with correct information about the harms that these services and procedures will cause, it will result in increased understanding.

CONCLUSION

Eliminating waste in a resource-poor country such as Pakistan is of prime importance especially in emergency departments where most of the investigations or proce-

dures are taking place in a time critical situation. This study has identified a low level of familiarity regarding Choosing Wisely campaign among Pakistani emergency physicians and revealed some important reasons for over-utilization of medical resources. Awareness of these recommendations would stimulate physicians to have an important conversation with patients regarding their care. By being part of this campaign, a recommendation from our local context can be developed by involving all stakeholders.

LIMITATIONS OF THE STUDY

Only three hospitals were included in the hospital with low sample size. Due to the insufficiency of the study subjects sample size calculation could not be done using scientific methods. Study findings may not be generalized due to the limitations.

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