

Are Patient Care Errors Made by Emergency Medicine Residents and Physicians due to a Lack of Medical Knowledge? (An Audit of Cases Presented at Morbidity Rounds)

P.W Wan, E.Wong

INTRODUCTION

Mortality and Morbidity (MNM) rounds are commonplace in various institutions. During these MNMs, errors resulting in sub-optimal patient care are identified. In the Department of Emergency Medicine (DEM), care for patients can be delivered by physicians of varying seniority. As such, the extent of medical knowledge can vary from one treating physician to another. In addition, the entity of cognitive errors are prevalent even in senior physicians. We aim to carry out an audit of all morbidity cases in 2017 and 2018; Identify the reasons for suboptimal management of these cases.

METHODOLOGY

This is a retrospective audit of all morbidity cases that were presented during MNM rounds in 2017 and 2018. Either one or more of the three Study Investigators were present during the discussion of these cases during the MNM rounds. Each of the study investigators were familiar with the various types of cognitive biases. For each morbidity case presented, the investigators would label it as a "Lack of Medical Knowledge" (LOMK) and/or "Cognitive error" (CE). Each cognitive error would be further classified according to the taxonomy of cognitive errors. Cases could have more than 1 CE labelled. In addition, the seniority of the involved treating physician was also labelled. All those who have not attained specialist accreditation or labelled "Junior" while those who have or labelled "Senior". If the case was co-managed by both a Senior and Junior physician then the responsibility of treatment lies with the Senior Physician.

RESULTS

A total of 43 cases (Table 1) were reviewed. 23 of the cases were treated predominantly by a Junior physician. Issues with communication, system errors or expected complication from treatment were combined under "Others" and comprised of 7 such errors. The predominant CE identified was that of Overconfidence. In these cases, 4 of them involved Senior Physicians, 5 of them involved Junior Physicians. Of the 43 cases, 12 (27.9%) of them were contributed by a LOMK. 10 of the cases with LOMK identified, had a concomitant cognitive error.

TABLE 1

Number of cases reviewed	43
Seniority	
Junior	23 (53.5%)
Senior	20 (46.5%)
Types of Error*	
Others	7
Medical Knowledge	12
Cognitive Error	44
• Overconfidence	9
• Premature Closure	8
• Optimism Bias	8
• Anchoring	7
• Confirmation	5
• Search Satisfaction	4
• Visceral Bias	2
• Availability Bias	1

*Cases may have more than one type of error, as such number of cases may not correlate with

TABLE 2

	Cognitive Errors	Non- Cognitive Errors	
Junior	26	8	p = 0.40
Senior	18	9	

Interestingly 50% of these 10 cases were associated with Overconfidence bias. There was no statistically significant difference in error rates between Junior and Senior Physicians (Table 2).

DISCUSSION

Our retrospective audit of MNM cases reveals the prevalence of CEs in treating patients at our Emergency Department. Its implications extend to patient safety and clinical care. In addition, these CEs can be committed regardless of seniority. Therein lays the importance to educate and increase awareness of this entity. Fortunately, counter measures for CEs exist.

There are various limitations to this study. The review of cases is held during the MNM rounds, involved parties may at times not be present during these meetings. As such, labelling various errors without their input may be a hasty approach. A possible solution would be to carry out interviews to better understand the frames that the treating physicians had during treatment of the patients.