

How Did We Handle Patient Safety Incidents In The Emergency Department (ED)?

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INTRODUCTION

- EDs are high-risk environments for patient safety incidents (PSIs)
- Previous literature reported adverse events (AEs) in EDs incidence rate of 0.8%-3.1%
- 36%-71% of AEs in the ED were preventable
- Clinical information is often lacking in the follow-up improvement method. Developing an open culture that supports the organizational communication of adverse events is essential.

OBJECTIVES

- Describe and analyze the relationship between the character type of AEs and follow-up solving strategy
- Review reported AEs in EDs

METHODS

- A retrospective cohort study in an urban medical center ED (11,000 emergency patients per month)
- Primary data extracted from PSI advice provided by the medical quality department (MQD) of the hospital from Jan. 2020 to Dec. 2021
- 45 PSI reports included (PSIs belonging to “no harm event” and “near miss” were not provided)
- AEs severity evaluated by the Modified Safety Assessment Code (SAC) Matrix by The Joint Commission of Taiwan (JCT)
- Chi-Square test conducted for statistical analysis

RESULTS

- Figure1: Descriptive analysis of AEs frequency: 13.3% (SAC 1), 15.6% (SAC 2), 28.9% (SAC 3), 42.2% (SAC 4)
- Figure 2: Distribution of different types of the adverse events
- Table 1: Analysis results of Chi-square tests and Fisher's exact test for different types of AEs and solving methods
- Significant differences in the distribution of solving methods for different types of AEs (p=0.003)

Fig.1 Distribution of the adverse events by various SAC degree

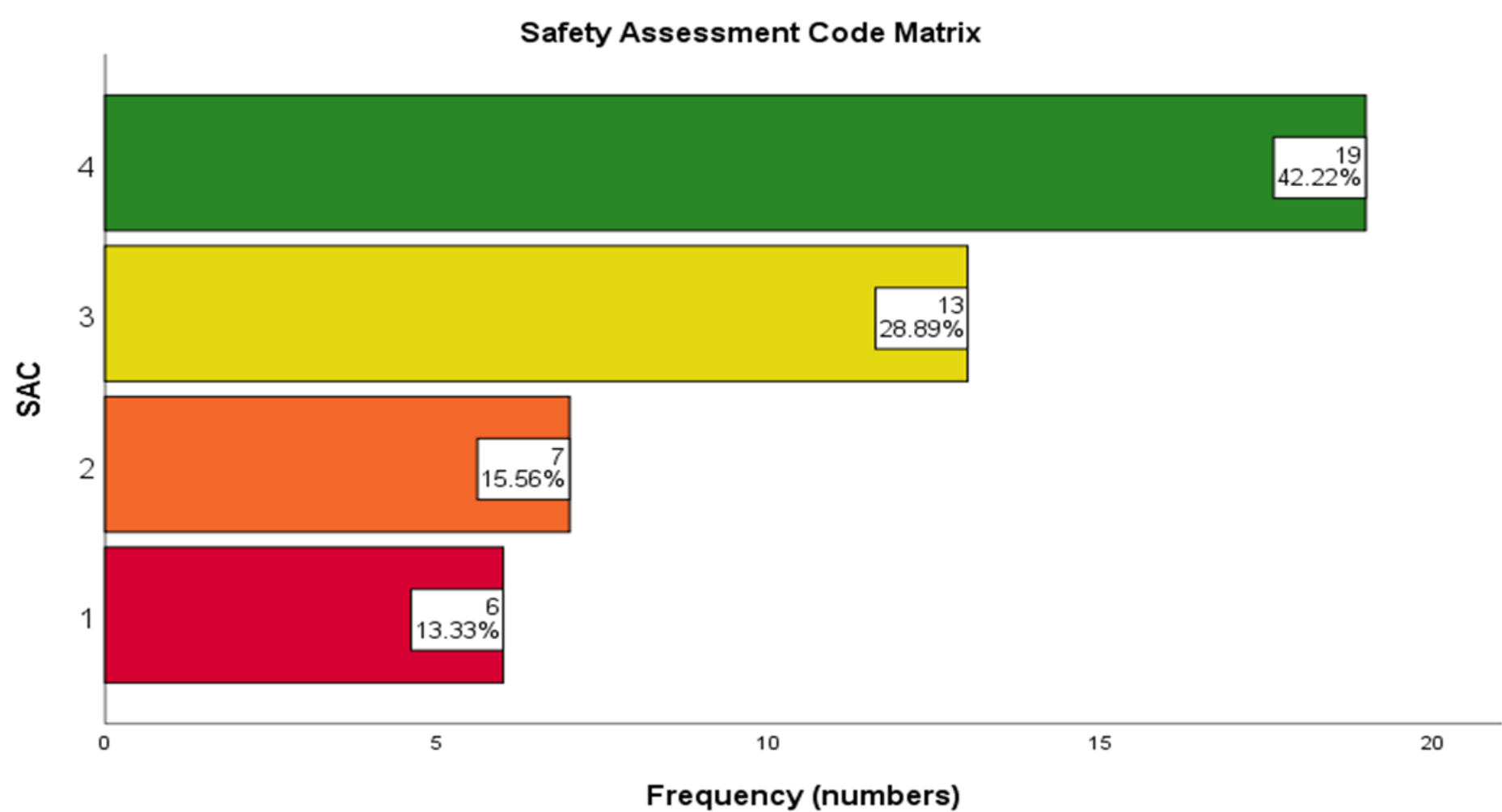
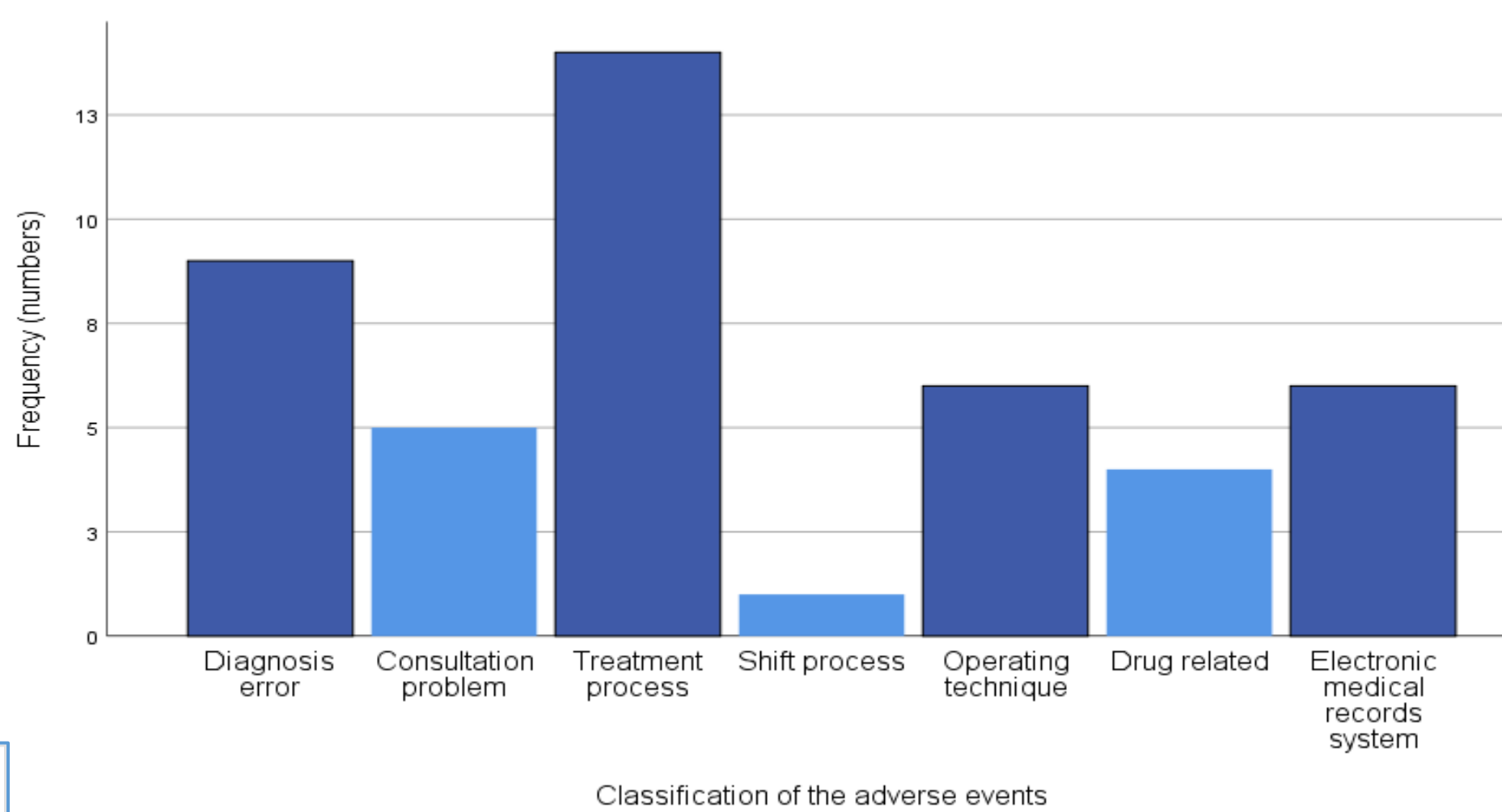


Fig.2 Distribution of different types of the adverse events



Classification * Resolution Crosstabulation^a

		Resolution												Total	
		Strengthen education and training		Strengthen department team communication		Interdepartmental Communication		Case discussion & clarification questions		Information system maintenance		Clinical process revision			
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
AEs Classification	Diagnosis error	3	33.3%	0	0.0%	1	11.1%	3	33.3%	1	11.1%	1	11.1%	9	100.0%
	Consultation problem	1	20.0%	0	0.0%	3	60.0%	0	0.0%	0	0.0%	1	20.0%	5	100.0%
	Treatment process	7	50.0%	0	0.0%	3	21.4%	2	14.3%	0	0.0%	2	14.3%	14	100.0%
	Shift process	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
	Operating technique	3	50.0%	0	0.0%	1	16.7%	1	16.7%	0	0.0%	1	16.7%	6	100.0%
	Drug related	2	50.0%	1	25.0%	0	0.0%	0	0.0%	1	25.0%	0	0.0%	4	100.0%
	Electronic medical records system	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%	0	0.0%	6	100.0%
Total		16	35.6%	1	2.2%	9	20.0%	6	13.3%	8	17.8%	5	11.1%	45	100.0%

Table 1: The Classification * Resolution Crosstabulation of AEs in ED

CONCLUSION

- For diagnosis errors, the most common strategies: Strengthening education & training and Case discussion & clarification questions.
- For the AEs of the Treatment process, the most common strategies: Strengthening education & training and Interdepartmental communication.
- The most common strategy for AEs of consultation and the shifting process is Interdepartmental communication.
- A certain number of AEs related to communication, need for better inter-departmental communication
- Consider measuring patient safety culture in the institution.
- Encourage reporting through systematic assessment and non-punishment solutions to emphasize the value of patient safety reporting.

RECOMMENDATION

1. Improve multidisciplinary communication: Developing effective communication channels between departments can help reduce errors and misunderstandings, particularly during rotations involving emergency resident physicians and subspecialty consultant physicians.
2. Encourage incident reporting: Encouraging staff to report patient safety incidents through non-punitive assessments and solutions can help create a more transparent and safer environment for patients in EDs.
3. Implement targeted education and training: Focusing on addressing specific types of AEs through tailored education and exercise can help medical caregivers increase their knowledge and reduce the occurrence of similar incidents in the future.
4. Utilize technology and standardized tools: Implementing standardized checklists, structured reporting, and technological improvements can help reduce diagnostic errors and streamline the treatment process in EDs.

By adopting these strategies, EDs can work towards creating a safer environment for their patients and fostering a culture of continuous improvement and learning.



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