

ANAESTHESIA RELATED CLINICAL PRACTICE AND PATIENT’S SAFETY IN EGYPT: A SURVEY OF ANAESTHETISTS OPINION

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INTRODUCTION

WHO states patient's safety as a global concern and presents it as a global effort, aiming towards improving patient's health in developed and developing countries. Due to limited resources and a critical shortage of anaesthesia practitioners in Egypt, many problems have emerged, addressing the physical and mental stress of anaesthesiologists. However, there has been a lack of nationwide investigation survey studies evaluating anaesthesia-related clinical practices and patient safety in Egypt.

AIM OF THE WORK

The primary objective of this study was to evaluate the current situation in Egypt regarding anaesthesia practice and perioperative care. The secondary objective was to assess and analyze various factors associated with anaesthesia practice and patient safety, such as professional development, working conditions, and some outcome measures, including adverse drug reactions.

SUBJECTS AND METHODS

The study was a cross sectional questionnaire-based observational one that was conducted in Egypt within a specific time frame; from December 2021 to May 2022. Inclusion criteria were anaesthesia practitioners with more than 3 years of experience, anaesthesia specialists, and consultants. Exclusion criteria were anaesthesia practitioners not willing to join the study, and anaesthesia practitioners who did not respond on the questionnaire properly. This study included 246 anaesthesiologists who responded to the proposed survey questions from different provinces in Egypt.

RESULTS

Table 1 showed distribution of participants according to the health zone while Table 1 showed demographic data. The obtained results showed that 49.2%, 48% and 55.7% of anaesthesia practitioners reported the lack of proper anaesthesia resources in their workplace, improper perioperative documentation and lack of preventive measures against environmental hazards respectively. 17% and 41.9% of anaesthesiologists disagreed to perform routinely proper labeling of medications and having a sufficient continuous education activity respectively.

Additionally, 38.7%, 36.6% and 68.7% of respondents agreed to have inadequate supervision of juniors’ staff by consultant, evaluated the patient firstly in the operating room and performing routine preanaesthetic machine respectively. While 56.5% of anaesthesiologists disagreed that they applied WHO Surgical Safety Checklist routinely. 93.5%, 47.5%, 64.7% and 29.7% agreed that they strictly followed pre-operative fasting guidelines, they obtained written informed consent, performing risk assessment, and they routinely administered premedications respectively. 97.6% and 67.9% of anaesthesiologists agreed that they routinely used pulse oximetry and ECG monitoring in every case, respectively. 40.3% of respondents disagreed to use EtCO2 monitoring. 59.7% of respondents agreed that they strictly followed clinical practice guidelines. 46.3% of participants reported that they did not have available warm devices. 45.9%, and 79.3% of anaesthesiologists reported that their workplace lacked the presence of a postoperative anaesthesia care unit or postoperative pain management team, respectively. In addition, 32.2%, and 26% of anaesthesiologists disagreed to report any incidence of mortality and morbidity or to have anaesthesia incidence reporting system in their department, respectively. The average fees for administering anaesthesia in a private hospital for a cesarean section, 19.9%, 39.4%, 28.5%, and 12.2% of anaesthesiologists gain less than 300, 300 – 400, 400 – 500, and >500 Egyptian pounds, respectively, and 87% of respondents were unsatisfied about their fees. 53.3% of practitioners agreed that they often worked without skilled assistants. 64.2% of anaesthesiologists suffered from stress.

Table 1: Distribution of participants according to the health zone.

Health Zone	No.	Percentage	Health Zone	No.	Percentage
Cairo	91	37%	Port Said	4	1.6%
Alexandria	65	26.4%	Qalyubia	4	1.6%
Minya	19	7.7%	Giza	3	1.2%
Monufia	12	4.9%	KafrElSheikh	3	1.2%
Asyut	10	4.1%	Suez	3	1.2%
Gharbia	10	4.1%	Sharqia	2	0.8%
Sohag	8	3.3%	South Sinai	2	0.8%
Aswan	4	1.6%	Damietta	1	0.4%
Dakahlia	4	1.6%	Ismailia	1	0.4%

Data was presented as number and percentage.

Table 2: Distribution of participants according to their demographic data.

Demographic Data		No.	Percentage
Respondent Status	Consultant anaesthesiologist	106	43.1%
	Specialist anaesthesiologist	81	32.9%
	Resident anaesthesiologist	59	24%
Number of operating rooms in the theatre	1-2	6	2.4%
	3-5	117	47.6%
	6-10	37	15%
	> 10	86	35%
Number of anaesthesiologists available to cover all room	1-2	55	22.4%
	3-5	92	37.4%
	6-10	35	14.2%
	> 10	64	26.0%
Number of working hours per week	< 60	94	38.2%
	60-70	42	17.1%
	70-80	41	16.6%
	> 80	69	28.1%
Number of nurse anaesthetists in the theatre	1-2	135	54.9%
	3-5	67	27.2%
	6-10	29	11.8%
	> 10	15	6.1%

Data was presented as number and percentage.

CONCLUSION

The present survey revealed several deficiencies in quality of anaesthesia practice in Egypt such as, availability proper anaesthesia resources, preventive measures against environmental hazards, postoperative anaesthesia care units (PACUs). Improvement is needed in obtaining written informed consent, proper premedications, routine preanaesthetic machine checkup, labelling of medications, usage of standard monitoring, perioperative documentation, application of the WHO surgical safety checklist, sufficient continuous education activity, an incidence reporting system, compliance to clinical practice guidelines, stress coping among anaesthesia providers and fair financial compensation for anaesthesiologists.