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Management of Anaesthetic Risk

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In 20 years, in France, the number of interventional procedures practiced under anaesthesia has increased from three million to eight million, public and private activities combined.

If the profile of surgery has changed little, the gravity of patients has significantly increased....and yet anaesthetic mortality has gone from one in 13,000 anaesthetics to 1 in 145,000 (SFAR/INSERM study: 1983-1999)...it is therefore ten times less important.

Risk Improvement Measures

It is not a stroke of luck: during these twenty years, professional doctors in anaesthesia, assisted by the authorities, have not stopped trying to improve the management of anaesthetic risk: recommendations for good clinical practice (SFAR - French National Society of Anaesthesia and Intensive Care, CFAR - French College of Anaesthesiologists), expert and actualisation conferences, continuous medical training, progressive installation of the evaluation of professional practices, staff morbidity/mortality, laws and decrees (1994) on obligatory pre-anaesthetic consultation, recovery rooms, equipment, materiovigilance and anaesthetic vigilance.... as many tools which have allowed us, as in industry, to extract from the primary analysis individual faults, unique causes of risks and accidents, to enter into a dynamics of analysis of the system in order to highlight the latent organisational factors having led to this fault. It is the ALARM method (Association of Litigation and Risk Management) put forward by REASON.

The management of anaesthetic risk thus rests on:

1.the analysis of anaesthetic accidents which can be related to a pre-existing pathology in the patient, the use or toxicity of anaesthetic agents, a material failure (respirator, power or oxygen failure) or a human failure

2.the analysis of the environmental and organisational context which, very often, potentiates or is at the very origin of the human failure when it exists.

An example: the census of undesirable anaesthetic events at the Nice University Hospital *(CHU de Nice)* over a period of four years allowed us to highlight an organisational cause in 70% of cases:

- non respect of programmings

- insufficient staff

- exceeding time slots

- maintenance of unmade or badly made material

On a scale of level of seriousness of incidents, going from

1 (without consequence to the patient) to 5 (death), these organisational disfunctionments are situated on average at level 2 (rendering the patient insecure).

Collective Responsibility

Furthermore, anaesthetic risk management appeared during the last few years, no longer as a purely anaesthetic responsibility linked to the professionals themselves and dependent on them only, but as a collective responsibility shared on one hand by the group of teams working in the operating theatre (anaesthetists, surgeons, operating theatre nurses, state registered nurse anaesthetists, nurse aides...) and, on the other hand, by the managers and administrators of the hospital who must optimise human and material resources while being collectively concerned with quality, safety of care and the least cost.

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Thus, although having reached a recognised level of safety, anaesthesia must still ask itself about the evolution it wishes to give to its safety dynamics and the indices that it can use to evaluate the regression of risk. Future stakes rest on the evaluation of the quality of care using precise tools (systematic analysis) and the reduction of latent factors (system or organisational errors) at the origin of care defects (human errors) involved in the occurrence of anaesthetic incidents, indeed accidents.

It concerns the development of a real culture of learning from mistakes, a re-organisation of care structures by integrating various health professionals, the use of indicators allowing traceability, the continuous follow up of the quality of anaesthetic activity (morbidity-mortality studies), the development of simulation systems, continuous training and the standardisation of practices.

Conclusion

The concept of anaesthetic risk must, therefore, largely overflow that of operating risk in the broad sense of the term (pluri-disciplinary and pluri-professional). It must be based on a coordination of vigilances, at the hospital dimension, whether these be statutory (haemovigilance, materiovigilance, pharmacovigilance etc.) or not (vigilance in the operating theatre suite, evaluation of professional practices), and a coordination of organisations, if one and the other are dissociable.

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