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Review article

Facing the airway challenge: a review of difficult airway guidelines in modern practice

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Abbreviations

ASA	– American Society of Anesthesiologists
CAFG	– Canadian Airway Focus Group
CICO	– "cannot intubate, cannot oxygenate"
CT	– computed tomography
DA	– difficult airway
DAS	– Difficult Airway Society
FONA	– front-of-neck access
ICU	– intensive care unit
MR	– magnetic resonance
NAP4	– 4th National Audit Project
NM	– neuromuscular blocking agents
SAM	– Society for Airway Management
SGA/ SGD	– supraglottic airway/ supraglottic airway device
US	– ultrasound

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Abstract

***Background and purpose**: Airway management remains one of anesthesiology's most unpredictable challenges. The prediction of a difficult airway extends beyond the scope of standard bedside tests and anthropometric measurements, therefore patients classified as low risk may present with unanticipated challenges in ventilation or tracheal intubation. This review explores the limitations of current predictive tools and provides an overview of the leading national guidelines for unanticipated difficult airway management.*

***Materials and methods:** A detailed guideline analysis was performed covering definitions, incidence, risk factors, and recommendations issued by major national and professional societies in the field of airway management.*

***Results:** Findings confirm that bedside predictive tests lack accuracy, and most difficult airways are unanticipated. The incidence of the difficult airway varies greatly in the literature, by setting and surgical specialties. Guidelines, though varied in structure, consistently emphasize first-pass success, limited attempts, early alternative device use, and the need for backup strategies and documentation.*

***Conclusions:** Airway difficulty is an essential part of pre-operative evaluation but remains largely unpredictable. Although technological innovations improve management, neither history, clinical examination nor widely used bedside tests are consistently reliable predictors. Effective clinical judgment, individualized planning with a ready back-up strategy for a possible failed airway management, together with structured, evidence-based guidelines still remain essential. Documentation, teamwork, and adaptable algorithms tailored to environment and clinician preference are key to enhancing patient safety and reducing airway-related adverse events.*

INTRODUCTION

The challenge of airway management has been present since the old days, but the airway challenge got especially intense from the first endotracheal intubation. Airway management still remains one of the most unpredictable aspects of anesthesiology. Despite all efforts to identify a potentially difficult airway in advance, anesthesiologists are sometimes faced with unexpected difficulties during intubation. According to the literature, nearly 90% of difficult intubations are unanticipated *(1)*. This highlights the importance of detailed preoperative assessment and gathering relevant medical history information, including data on prior surgeries, previous anesthetic experiences, and any documented airway difficulties. Based on this information, anesthesiologists can de-

velop a primary airway management plan, along with alternative strategies.

Significant technological advancements have been made to support clinicians in managing difficult airways more safely and efficiently. Each day, new tools and devices are being developed and refined, ranging from intubation stylets and supraglottic airway devices to various types of endotracheal tubes, advanced laryngoscopes, fiberoptic and invasive airway access tools. These innovations aim not only to facilitate successful airway management in challenging cases, but also to improve first-attempt success rates, reduce complications, and ultimately enhance patient safety.

However, although technology is helpful, clinical judgment remains superior in the management of the difficult airway. Difficult Airway Society (DAS), Society for Airway Management (SAM), American Society of Anesthesiologists (ASA), as well as many others, recognized this problem and the importance of providing possible solutions in order to facilitate ventilation, oxygenation and intubation process. This increasing awareness of airway-related risks has led to the publication of numerous national guidelines, society-issued recommendations, and scientific papers addressing airway assessment and management algorithms. There is now a wide range of available airway management guidelines designed to help physicians make informed clinical decisions with a goal to either prevent or lower the incidence of undesired complications and events. While some of these guidelines may be overly complex and difficult to follow in crisis situations, they share the same core message: to ensure patient safety through structured and evidence-based airway management. The diversity in their approaches allows clinicians to select the framework that best suits their own clinical style, choosing the most practical way to implement them in real-life scenarios.

DIFFICULT AIRWAY

Definitions of difficult airway

According to ASA, a short definition of **difficult airway** (DA*)* is "a clinical situation in which a conventionally trained anesthesiologist experiences difficulty with facemask ventilation of the upper airway, difficulty with intubation, or both" *(2).* However, a DA doesn't always imply difficult intubation. Airway can sometimes be difficult if a mask ventilation is difficult, but intubation is easy. It can be difficult if mask ventilation and laryngoscopy are difficult, but insertion of the endotracheal tube is difficult or impossible. All the detailed definitions of multiple DA possibilities are provided in ASA *(2)* and the Canadian Airway Focus Group (CAFG) guidelines *(3).*

Failed intubation is a challenging situation. If oxygenation is still maintained, there is still time to act and to consider options. However, in an unanticipated difficult intubation accompanied by impaired ventilation, we face a red flag scenario in which the patient cannot be intubated, nor oxygenated. Formerly used term for this situation standing for complete ventilation failure was **CICV** (*cannot intubate, cannot ventilate*), which has recently been replaced by a new, internationally recognized and widely accepted one: **CICO** (*cannot intubate, cannot oxygenate*). The term was introduced by Andrew Heard to change the focus from tracheal intubation as a mandatory goal. In attempts to place the endotracheal tube in the right place, accidental adverse events mostly caused by trauma of the airway can occur. Andrew Heard wanted to put oxygenation of the patient during an airway emergency in the spotlight and to make physicians aware that there are other, alternative options *(4).* In contrast, the CAFG, in their 2021 updated guidelines, introduced the term **CVCO** (*cannot ventilate, cannot oxygenate*). This terminology emphasizes a two-stage recognition of airway failure: first, the inability to ventilate, followed by the inability to oxygenate, which may offer additional clarity in clinical decision-making *(3).*

Incidence of a difficult airway

Endotracheal intubation seems to be the third most common medical intervention in the United States of America *(5).* This information illustrates how important airway management is. The incidence of the DA varies in the literature, and it is very hard to find consensus data. Numbers can differ greatly due to different study designs, experience of the airway manager, definitions, even depending on the practice location. For example, according to the Canadian guidelines, incidence of difficult or failed tracheal intubation is much lower in the operating room than in the critical care setting (3). In general, difficult mask ventilation incidence ranges between 1,4-5% and impossible mask ventilation between 0,07-0,16% *(6,7).* Difficult intubation occurs in 1,5-13% *(8),* and impossible intubation performed by direct laryngoscopy in 0,05-0,35% *(9,10).*

Predicting the difficult airway

Predicting the DA has always been a challenge. There are four major groups of factors which all must be considered, and which together can help identify the DA.

Medical history

Patient medical history is a very important factor. Presence of different congenital anomalies like Pierre-Robin, Klippel Feil, Goldenhar's, Treacher-Collins, Down's syndrome and many others are just one of many conditions which can aggravate intubation. Clinical situations in which patients present with face and/or neck trauma, hematomas or abscesses, request full attention because those are situations which are not only prone to difficult intubation, but also for difficult ventilation. Therefore, in these

cases anesthesiologist must always be aware of the potential CICO situation.

Chronic diseases like diabetes, rheumatoid arthritis, obesity, obstructive sleep apnea and ankylosing spondylitis need to be noted due to limitation of neck mobility and inability to fully open the mouth. Special positioning on the operating table can also greatly influence airway management *(11,12,13,14,15)*.

Medical documentation

Important aspects of airway management include the necessity of comprehensive documentation of DA, not only within hospital systems but also through clear communication with the patient. Medical documentation provides valuable information on previous DA. In 1996 in the United Kingdom (UK), DAS initiated a project for a national airway database information which provided a continuous 24-hours available information on every patient with DA to every registered medical practitioner in the country *(16)*. At the same time patients were given a DAS Airway Alert Card which contained a summary of the vital information about their DA and how it was managed *(17)*.

Equally vital and irreplaceable is interprofessional collaboration because despite technological advances, many healthcare institutions still lack electronic medical records. Patients are frequently treated across multiple facilities that do not share clinical data, and emergency admissions often occur without any background information. In such contexts, direct professional communication and collaborative decision-making between institutions can be crucial, sometimes even lifesaving.

Clinical examination and anthropometric measurements

Prediction of the DA could significantly lower the incidence of serious complications and mortality. It would mean turning an unexpected event to an expected one and giving the opportunity for the team to prepare its members and the patient for a challenging scenario. Guidelines strongly suggest that all patients undergoing anesthesia must be examined before the induction of anesthesia. Examination can identify pathology of the upper airway, other risk factors for anesthesia and airway management and should include assessment of facial characteristics, Body Mass Index (BMI), pregnancy, dentition, beard, mouth opening, neck mobility, presence of malformations *(2,11,12,13,15,18,19,20)*. Anthropometric measurements and acronyms based on the several multivariate scoring systems, formed to help in prediction of the DA are numerous, and listed in Figure 1 *(12,14,15,21,22,23)*.

Diagnostic and imaging

Some diagnostic methods can help in estimation of the airway. The most used ones are X-rays, computed tomography (CT), magnetic resonance (MR), ultrasound (US) and nasendoscopy. Recently more novel, alternative imaging methods are being used as well, like 3D printing, virtual laryngoscopy and virtual bronchoscopy. With combination of clinical findings and imaging we can get valuable information on the airway, possible distortions, swelling, presence of the foreign bodies, fractures, hematomas, abscesses, tracheal stenosis (*13,15,16*).

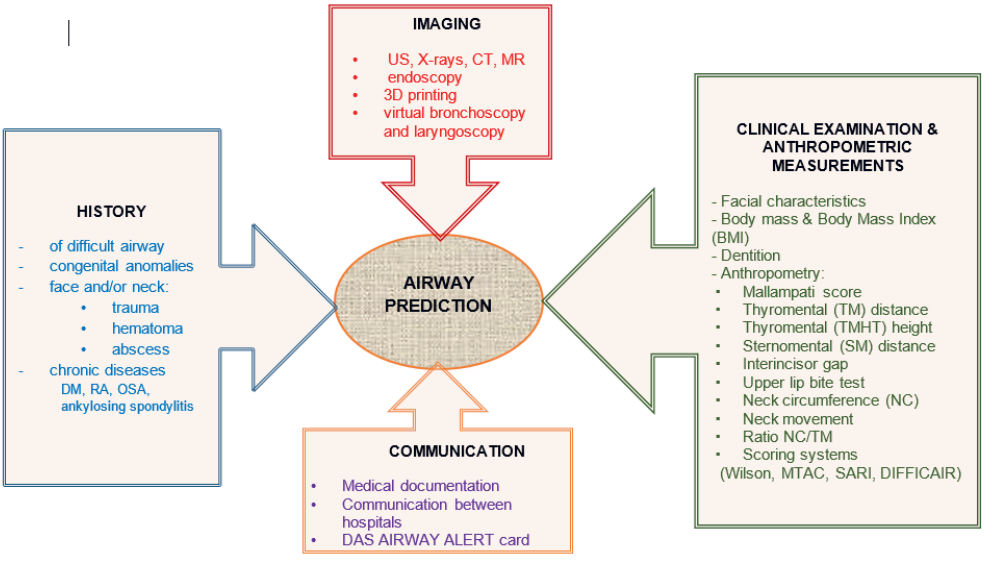

Figure 1. *Four major groups of factors for prediction of the difficult airways: (a) Factors related to the patient and his medical history, (b) Information on previous DA available from the medical documentation, (c) Clinical examination and anthropometric measurements, (d) Diagnostic and imaging methods. DM – diabetes mellitus; RA – rheumatoid arthritis; OSA – obstructive sleep apnea, US – ultrasound; CT – computed tomography; MR – magnetic resonance; DA – difficult airway; MTAC – modified Mallampati score; SARI –Simplified Airway Risk Index; DIFFICAIR – Difficult Airway management trial*

GUIDELINES

Considering the importance of airway management, major professional associations from around the world formed official guidelines with an idea to help clinicians find the most appropriate solution for every problematic airway. Most prominent guidelines are those from American *(2)*, British *(19, 20, 24),* Canadian *(3),* and Chinese expert groups (*15)*. Although created with the same intention, and practically the same message, each of them is unique in their own way.

ASA guidelines

Compared to the previous guidelines issued by ASA in 2013 *(25)*, the latest update published in 2022 *(2)* was developed in collaboration with an international task force and is based on the most current scientific evidence and clinical practice. These new guidelines focus specifically on the management of the difficult airway in both adult and pediatric patients, introducing updated algorithms designed to optimize first-attempt airway management success, enhance patient safety, and to reduce the risk of complications such as death, cardiac arrest, hypoxic brain injury, airway trauma, and dental damage *(25)*. They are intended for use in both inpatient and ambulatory care settings.

Although the core message remains consistent with previous editions, the latest ASA guidelines present several updates. The guidelines are organized into seven sections, each accompanied by specific action-based recommendations. They provide detailed recommendations for airway evaluation, preparation, management of both anticipated and unanticipated difficult airways, confirmation of successful tracheal intubation, extubation strategies for patients with difficult airways, and appropriate follow-up care *(25)*. Key messages include *(25):*

1. *Airway evaluation and individualized planning.* Every patient should have a strategy in place for airway management. In patients with an anticipated difficult airway, awake intubation should be considered a primary approach.
2. *Updated equipment recommendations.* The guidelines reflect technological advances and the current best practices for both standard and advanced airway management.
3. *Continuous oxygenation throughout airway management*. Supplemental oxygen should be provided prior to and during intubation, as well as between intubation attempts, in order to maintain adequate oxygen saturation.
4. *Time awareness.* Providers must be aware of elapsed time and avoid prolonged or repeated attempts without reassessment.
5. *Limitation of intubation attempts.* Excessive attempts increase tissue trauma and further complicate intubation, at the same time raising the risk of adverse events and should therefore be avoided.
6. *Use of alternative devices and approaches.* The guidelines advocate for early consideration of supraglottic devices, noninvasive ventilation, and — when indicated — invasive airway access, particularly in "cannot intubate, cannot oxygenate" (CICO) scenarios. Extracorporeal membrane oxygenation (ECMO) should also be considered where appropriate and available.
7. *Combination and integration of devices*. A multimodal approach, combining tools and techniques, may be necessary in complex cases.
8. *Dedicated algorithm for extubation*. A structured plan for extubating patients with known or suspected difficult airways is included.

A strong consensus emphasizes the importance of comprehensive documentation and planning for all patients with a known or suspected difficult airway. This ensures continuity of care, risk reduction, and improved patient outcomes *(2,25)*.

DAS guidelines

DAS guidelines for the management of unanticipated difficult intubation in adults were released in 2015 by Difficult Airway Society (DAS). DAS recognizes that the difficult airway is a complex problem that cannot be resolved by just one algorithm alone. Aside from guidelines for unanticipated difficult intubation, DAS also developed special guidelines for the management of difficult and failed tracheal intubation in obstetrics, for pediatric difficult airway, algorithm for awake tracheal intubation in adults, guidelines for the extubation of the DA, and guidelines for airway management in patients with suspected or confirmed cervical spine injury *(24*).

Furthermore, DAS acknowledges that existing airway algorithms are often excessively detailed, contributing to cognitive overload in high-stress situations. Such complexity may impair clinical decision-making by overwhelming providers with excessive information at critical moments. To improve practical applicability and enhance first-attempt intubation success, a simplified, structured four-plan approach is advocated, designated as Plans A, B, C, and D *(24)*. The core principles of this strategy include the following *(24):*

1. *Plan A.* Priority is maintenance of oxygenation during attempts which includes proper preoxygenation and apneic oxygenation. The goal is optimization of first intubation attempts. Limitation of attempts should be set to a maximum of 3+1 in order to prevent airway trauma. Appropriate positioning/ ramping of the patient, and use of video laryngoscope and NM blocking agents are emphasized.

2. *Plan B*. After failing intubation, oxygenation should be maintained, at all cost. Use of *second-generation SGD* is recommended, with a maximum *of three attempts* of insertion and without blind intubation through SGD, which is not recommended any more. During rapid sequence induction (RSI), cricoid pressure should be removed. If the airway is temporarily secured, the clinician should stop and think whether the best option is to wake the patient, intubate through the SGD or continue the surgery with SGD.
3. *Plan C – the last attempt of mask ventilation*. If it fails, guidelines offer two options: if mask ventilation is successful, maintain oxygenation, antagonize NM with sugammadex and wake the patient. If ventilation is impossible, give NM agents.
4. *Plan D* - declare *CICO*, proceed to *FONA* (front-of-neck access), preferably with a scalpel technique and a wide-bore cuffed tube placed through the cricothyroid membrane. High-pressure oxygenation through a narrow bore is not recommended because of serious morbidity.

NAP4

The British national findings of the NAP4 project (Fourth National Audit Project) represent a comprehensive analysis of major airway-related complications in the UK. The project collected data over a two-year period and was published in 2011 *(19,20*). It was initiated in response to critical incidents in clinical practice, following the death of Elaine Bromiley in 2005, which became a turning point in raising awareness about clinical failures and the need to learn from medical errors.

According to NAP4, 1 in 22,000 airway interventions results in a serious adverse event, while the incidence of airway-related deaths is estimated at 1 in 180,000 procedures *(19,20)*. Current data indicate that in 77% of cases, difficult airway management is primarily related to patient-specific anatomical or physiological factors, while in 59% cases, complications result from clinical misjudgment by healthcare personnel. NAP4 therefore focuses on learning through the analysis of clinical practice in airway management *(19,20)*. Using real case reports, it highlights the role of human factors in airway-related morbidity and mortality. These case-based analyses serve as a foundation for identifying learning points and formulating recommendations whose aim is to improve patient safety. The report is divided into two major components: the first part addresses airway management in anaesthesia, while the second covers airway management in intensive care and emergency departments *(19,20)*.

The guidelines emphasize the need for early identification of a potentially difficult airway, particularly in emergency and critical care settings. NAP4 constantly underscores that airway management is a strategy, not a single plan. It draws attention to multiple human factors commonly associated with airway management failure, including:

1. Inadequate or incorrect clinical *judgment*
2. Lack of anticipatory *planning*
3. Poorly constructed problem-solving *strategies*
4. Improper or ineffective use of *airway devices*
5. Excessive *intubation attempts*
6. Failure to act on indications for *fiberoptic bronchoscopy* (FOB), *rapid sequence induction (RSI*), or *awake tracheostomy*
7. *Failed front-of-neck access (FONA)* using cannula techniques

Through its structured case analyses, NAP4 promotes learning from real-life errors in order to improve future practice and reduce preventable harm in airway management *(19,20)*.

CAFG guidelines

The most recent Canadian guidelines for difficult airway management were published in 2021 by the CAFG *(3*). They provide updated, consensus-based recommendations for managing unconscious patients with unanticipated difficult airways and serve as a comprehensive update to the 2013 version. Their goal is to promote safe, standardized, and effective airway practices by offering optimal recommendations and supporting clinicians in making state-of-the-art decisions *(3)*.

Key highlights include *(3)*:

1. *Standardized definitions* of DA management to facilitate clear communication and shared expectations among healthcare providers.
2. Stepwise *protocols* for unanticipated DA, with detailed, structured algorithms that guide clinicians through airway management in such scenarios.
3. Emphasis on first-pass success and early use of *video laryngoscopy (VL)* as the primary intubation method, due to its association with improved outcomes and reduced complications.
4. Strategies for *difficult or failed face-mask ventilation*, supraglottic devices (*SGA) placement*, and *tracheal intubation*, including clear exit pathways. The guidelines offer explicit instructions on how to proceed after the first, second, and third failed intubation attempts, with an emphasis on maintaining oxygenation and ventilation at all times.
5. In a *"cannot ventilate, cannot oxygenate" (CVCO) situation*, emergency FONA (*eFONA)* is a critical, life-saving intervention that must be undertaken without delay. The recommended technique for adults is the scalpel–bougie–tube approach.
6. Proper placement of the tracheal tube should always be confirmed using *capnography*.

7. *Limiting intubation attempts* to a maximum of three, in order to minimize airway trauma, with an emphasis on pausing and reassessing before continuing.
8. Recognition of the unique challenges of *pediatric* and *obstetric airway* management, with a focus on careful planning and use of appropriate equipment and techniques.
9. Consideration of *human factors*, which can compromise airway safety. The CAFG strongly emphasizes the importance of clear communication, team training, and education to maintain providers' competency.
10. Emphasis on detailed *documentation* of airway events, including techniques used, difficulties encountered, and patient outcomes.

Chinese expert consensus

Chinese guidelines is an expert based consensus on assessment of DA, published in 2023 *(15)*. The primary goal of these guidelines is to improve the assessment and management of the difficult airway through a systematic evaluation process and the use of available clinical tools and resources. They represent a consensus framework and provide recommendations to improve safety in anesthesia and critical care environments.

Key components of airway assessment according to the guidelines are *(15)*:

1. *History*. A previously documented difficult airway is considered the most reliable predictor of future airway management difficulties.
2. *Comorbidities*. The presence of physical abnormalities or comorbid conditions can significantly influence the success of airway management.
3. *Physical examination*. Although widely used, current bedside tests are heterogeneous and have limited accuracy, with no single test being sufficient on its own to predict a difficult airway.
4. *Use of assessment tools and validated questionnaires*. These instruments can assist in the stratification of difficult airway risk, offering a more structured approach to assessment.
5. *Imaging of the airway*. Ultrasound is highlighted as a valuable tool for airway evaluation, offering real-time, mobile, accessible, and reproducible imaging, though it requires proper training for effective use.
6. *Cervical spine X-ray*. This imaging modality is useful in cases involving trauma, congenital anomalies, or degenerative cervical spine conditions.
7. *CT scan*. A CT scan is particularly beneficial in identifying airway malformations, stenosis, and infectious processes affecting the airway.
8. *MR*. It allows precise evaluation of retropharyngeal soft tissue thickness, which can be a useful predictor of difficult intubation, but its use is limited by cost and accessibility.
9. *Airway assessment with imaging tools (US, X-ray, CT)*. Ultrasound can be used to identify the cricothyroid membrane and offers advantages over CT or X-ray due to its lower cost and bedside availability. Increased anterior neck soft tissue thickness observed on ultrasound may indicate a higher risk of airway difficulty.
10. *Transnasal endoscopy*. This technique enables direct visualization of the upper airway anatomy, aiding in assessment and planning.
11. *Emerging technologies*. Newer approaches such as virtual laryngoscopy, 3D printing, facial image analysis, and voice-based assessment are promising but are not currently recommended for routine clinical use due to a lack of sufficient validation.

There are still some issues that are to be further discussed. Those are identification of the *most useful bedside airway prediction tests, t*he role of *imaging modalities* in the prediction of airway difficulty, position of a*rtificial intelligence (AI)* in DA prediction, the *integration of traditional and modern* technologies and the *optimization of preoperative airway assessment* in light of new technologies and equipment that allow safer airway management. Despite advances in modern technology, the consensus concludes that history and physical examination still remain the cornerstone of difficult airway evaluation *(15)*.

SAM guidelines

Other than classical, anatomical reasons for difficult intubation, there is a rather new concept of *physiologically difficult airway*. This is a term introduced by the SAM, which concluded that in critically ill patients, a severe risk for inadequate ventilation is present *(26)*. The reasons are mostly physiological derangements which can influence ability to ventilate or maintain oxygenation during intubation, conditions like hypoxemic respiratory failure, status asthmaticus, obesity, severe metabolic acidosis, COVID 19, sepsis, pregnancy, pericardial tamponade, pulmonary hypertension, right ventricular failure, hypotension and shock. Already present hypoxemia, hypotension and severe metabolic acidosis in critically ill patients can further be worsened, resulting in rapid desaturation, hemodynamic instability, arrhythmias, anoxic brain injuries, and cardiopulmonary arrest and death. Special Projects Committee working group came to a consensus agreement with recommendations on how to manage physiologically DA in specific cases like *hypoxemia, hypotension, RV dysfunction*, *severe metabolic acidosis* and *neurologically injured patients (26)*.

DISCUSSION

DA is always a critical concern for clinicians, particularly when it is unanticipated. Failed intubation represents an especially challenging scenario. However, if oxygen-

ation is still preserved, there remains time to intervene and consider several options: calling for help, changing the intubation technique, switching to non-invasive oxygenation methods such as a supraglottic airway device (SGD), or even cancelling the procedure and waking the patient.

According to one study, incidence of *difficult intubation in the general population* is only 0.26% *(27).* Compared to general surgical population, due to specific pathology, physiology, and pathophysiology, surgical specialties like *obstetrics* (28,29,30*),* ear, nose and throat *(ENT)* surgery *(21,31,32),* and *maxillofacial surgeries* pose a significantly higher risk for a DA *(18,21,31,32).* When analyzing airway-related complications, airway management in the *intensive care unit (ICU)* is also associated with a significantly higher complication rate most commonly due to hypotension and hypoxemia, with cardiac arrest being the most severe outcome *(33).*

The CAFG 2021 guidelines confirmed that the incidence of difficult airway (DA) varies significantly with clinical environment. According to their data difficult intubation in the operating room occurs in 3-8%, in the emergency department in 1–11%, while in the ICU setting, difficult tracheal intubation occurs in 5–23% of cases *(3).* This confirms that both ICU and emergency settings have a higher incidence of DA compared to the operating room *(3).*

The NAP4 results showed that difficult intubation events were involved in 42% of reported anesthesia incidents, with airway complications leading to death in 13% of these cases (19, 20). Data from the Canadian Medical Protection Association further indicated that airway-related problems made up 11% of closed cases which involve anesthesiology and that 24% complications resulted in anoxic brain damage and 52% in death *(34).* Similarly, a closed claim analysis from ASA revealed that 77% of claims in perioperative settings were due to difficult endotracheal intubations, of which 78% were linked to brain damage or death *(35).*

Predicting DA has always been and still is a challenge. Despite numerous studies, projects and published papers, results showed that there is no specific test or predictor which definitively predicts DA *(3,14, 15, 22, 23, 28, 36).*

Nørskov et al. conducted a comprehensive retrospective study on 844 000 patients from the Danish Anesthesia Database *(1).* They compared the accuracy of a possible DA prediction. Difficult intubation was established in 1,8% of cases, with 93% being unexpected. The incidence of difficult mask ventilation was significantly lower: 0,6% with 94% mask ventilation being unexpectedly difficult. Authors concluded that there are no reliable predictors which can identify a DA prior to anesthesia *(1).*

Effective assessment and management of a difficult airway requires cooperation between medical teams and institutions. Regardless of where they practice, all healthcare professionals should operate with a shared goal - delivering optimal care to the patient. For instance, accurate airway assessment in certain cases depends on radiographic imaging techniques, while anesthesiologists often rely on surgical teams, such as maxillofacial or ENT specialists, in emergencies requiring invasive airway access. Similarly, colleagues from non-surgical ICUs often request anesthesiology support when managing high-risk airway patients.

When it comes to documentation of DA, it is not enough to just make an entry in a hospital database. The event must also be clearly explained to the patient, along with providing detailed written information *(3).* Despite advances in healthcare, most hospitals still lack integrated databases and access to shared medical records. Patients are frequently treated at multiple institutions that do not communicate, leaving critical gaps in medical history. Emergency services often bring patients directly from the field without any prior records or airway information - putting lives at risk due to missing vital data, such as history of previous difficult airways. In such situations, direct communication, collaboration, and knowledge-sharing among anesthesiologists across institutions can often be lifesaving, especially in high-risk cases *(14).*

CONCLUSION

Airway assessment is a mandatory part of the preoperative examination. Patient's medical history, information on previous general anesthesia and possible airway management difficulties that patient might have had are valuable information. Medical documentation and clinical examination combined with estimation of physiological characteristics and anatomical landmarks indicative for difficult intubation could be warning signs for a difficult airway. It should be kept in mind that bedside tests which are routinely performed are not reliable predictors for difficult intubation and that the majority of all difficult intubations are unanticipated. It is still advised to perform them and consider them as a stop-and-think point.

Every patient requires an individually tailored airway management strategy, consisting of a series of well-defined plans established prior to induction of anesthesia. Also, a back-up plan for failed intubation should be an integral component of every such strategy.

Medical documentation on the difficult airway is very important. Information on DA should be recorded in the hospital's database, medical documentation and a written copy provided for the patient along with verbal explanation.

Considering the importance of the matter, it should be kept in mind that every single airway management could be difficult. A well-defined backup strategy should be incorporated into the management plan for every patient, with a proactive approach to always expect the unexpected.

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