



Medical Direction and Practices Board
Clinical Update on Use of Bougies in the 2023 Maine EMS Protocols
White Paper

In the 2023 protocol updates, the MDPB chose to soften the language on the use of bougies. Previously, the protocols indicated that “bougies **should be used** on all intubation attempts using size 6.0 ETT and above”. This sentiment was included in the Airway Algorithm and the Pre-Intubation Checklist. This practice is felt to be reasonable, but not universal in all airway scenarios, as patient situation and clinician training may call for another strategy. Additionally, conflicting literature has been published in the last few years about the efficacy of bougie use as a universal approach. The MDPB feels that bougies remain an important and effective tool in prehospital airway management but will no longer require their use in all airway attempts. Instead, these protocols will indicate that “Use of bougie on all intubation attempts with size 6.0 ETT and above is **strongly recommended**”.

Recent Clinical Literature:

2021 BOUGIE Trial: Multicenter Randomized trial of emergent airway attempts in both emergency departments and intensive care units. There was no difference seen in first past success rate between bougie first (80.4%) and stylet first (83%) approaches. There was no difference in occurrence of hypoxemia. However, bougie use did prolong time from induction to intubation by 12 seconds. [*JAMA*. 2021;326(24):2488-2497]

2018 BEAM Trial: Randomized trial of emergent airway attempts in an academic emergency department. First intubation success rates higher with bougie (98%) vs stylet (87%) in all patients and an even higher difference in those patients who had a predictor of a difficult airway (96% bougie and 82% stylet). There were no differences in hypoxemia or time from induction to intubation. [*JAMA*. 2018;319(21):2179-2189]

Clinical Practice:

Members of the MDPB have variable use of the bougie in their own clinical practice: some using it universally for all airway attempts and some using it as a backup/alternate device for difficult airways or airways predicted to be difficult. MDPB members use their clinical experience and expertise to teach advanced airway management to EMS clinicians. When reviewing this protocol, the MDPB felt that protocolized universal bougie use varied from provider clinical experience and teaching and softer language allows for variation in practice and teaching. Based on the clinical equivalence in the 2021 BOUGIE trial, this variation is supported by the most recent literature available.