Proper Placement Depth of Nasotracheal Tubes

Placing orotracheal tubes at a depth of 21 cm in women and 23 cm in men, measured at the corner of the mouth, usually achieves correct tube depth on chest x-ray. Investigators at Hennepin County (Minn.) Medical Center tried to establish similar guidelines for placement of nasotracheal tubes.

Adequate tube placement was defined as the end of the nasotracheal tube being below the larynx and at least 2 cm above the carina on chest x-ray. In Part 1 of the study, the authors prospectively observed tube measurement at the naris and adequacy of tube placement on chest x-ray in 50 women and 74 men. Placement was adequate in 78% of women and 97% of men. The authors calculated that the optimal depth of placement would have been 26 cm at the naris in women and 28 cm in men. In Part 2, they tested these depths prospectively and found tube placement to be adequate in 25 of 26 women and 51 of 52 men (overall success rate, 97%).

Comment: As with orotracheal intubation, there is a 2-cm difference between sexes in the optimal depth of nasotracheal tube placement. While depths of 26 cm and 28 cm at the naris in women and men, respectively, are good guidelines, chest x-rays should still be obtained to assure adequate placement.

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