

However, intubation of the trachea during the late stages of pregnancy can be particularly challenging, due to the following factors:

- 1 presence of full dentition
- 2 short obese (oedematous) neck
- 3 engorged breasts

4 oedema of the upper airway (if hypertensive disorders are present)

**5** risk of regurgitation during intubation

Any strategy for the intubation of patients in the late stages of pregnancy must have the aim of minimising the time from commencing laryngoscopy to inflation of the tracheal tube cuff to reduce the risk of aspiration: all such interventions are, therefore, 'crash' intubations (Box 11.1).

## Box 11.1: Obstetric intubation strategy

1 Remember to proceed with left lateral tilt of 15-30° applied. 2 Because of the pre-existing risk of regurgitation being exacerbated by ventilation by non-cuffed airway devices, minimise the tidal volume of ventilation via bag-valve-mask and move as guickly as possible to intubation (do not waste time attempting to hyperventilate the patient). 3 Have suction running with the tip placed under the patient's shoulder. Use wide-bore tubing, not an ET catheter. **4** Prepare the ET tube for a crash intubation: cut to length, and with a syringe, catheter mount, and tube-tie pre-attached. nb. If the patient is in cardiac arrest chest compressions must not be interrupted for more than 10 seconds during the intubation attempt. **5** Prepare a second ET tube one size smaller than normal, as above. This may be required in the event of laryngeal oedema. 6 Prepare an ET tube introducer (bougie) for use, curving the bougie and ensuring the distal tip is formed into a J (coud'e) shape. Always use a bougie in the pre-hospital settina.

7 Consider using a number four laryngoscope blade.

**8** Use at least one pillow or equivalent to place the patient's head in the 'sniffing the morning air' position (unless suspicion of cervical-spine trauma).

**9** Insertion of the laryngoscope may prove very difficult in pregnant patients. This may be overcome by removing the blade from the handle, inserting it, and then re-attaching the handle with the blade in the mouth.

**10** Since there is a high risk of regurgitation, an assistant should apply Sellick's manoeuvre. This differs from cricothyroid pressure in that a hand must be placed under the neck as well as on the cricoid cartilage. This action helps to compress the oesophagus



N.B. Never terminate resuscitation of the pregnant patient in the pre-hospital setting

Figure 11.4 Advanced life support algorithm for obstetric cardiac arrest. (Adapted from Resuscitation Council (UK). Adult Advanced Life Support Algorithm. Available at: http://www.resus.org.uk/pages/ gl5algos.htm. Accessed 1 August 2008.)