In cases where it is not possible to measure inspired oxygen concentrations, the recommended ratio of oxygen and nitrous oxide used in a circle system is:

a) 2 parts nitrous oxide to 1 part oxygen
b) 79% nitrous oxide, 21% oxygen
c) 1 part nitrous oxide to 1 part oxygen
d) Less than 1 part nitrous oxide to 1 part oxygen

Which statement about the recovery period following administration of nitrous oxide is FALSE?

a) Recovery may be faster because nitrous oxide wears off more quickly than other inhalant anaesthetics.
b) Oxygen must be delivered for 5-10 minutes after nitrous oxide is turned off to prevent diffusion hypoxia.
c) Low oxygen flow rates produce a more stable anaesthetic and a smoother recovery.
d) Nitrous oxide reduces the amount of other volatile anaesthetics required, reducing respiratory and cardiac depression.

The use of nitrous oxide is contraindicated in which one of the following clinical scenarios:

a) 8 year-old Labrador with a closed pyometra
b) 2 year-old Yorkshire Terrier with an intestinal foreign body
c) 8 week-old DSH spay
d) 10 year-old Jack Russell Terrier for a joint tap

Health and safety considerations are important if nitrous oxide is used in practice. Which one of the following statements is FALSE?

a) Workplace exposure must be monitored and kept below 1000 ppm.
b) All anaesthetic machines must have a working oxygen alarm.
c) An efficient scavenging system must be in place and serviced annually.
d) Pregnant women must have a choice to avoid exposure if desired.

In the postoperative period, it is important for VNs to monitor for signs of pain or discomfort because:

a) Nitrous oxide is a good anaesthetic but NOT an analgesic
b) Nitrous oxide inhibits the action of some opioids
c) Nitrous oxide is used only for procedures that will be very painful
d) Nitrous oxide wears off quickly, as does the analgesic effect

Why is it best to use both a pulse oximeter and an inspired oxygen analyser when monitoring a patient to which nitrous oxide is administered?

a) At low flow rates, the amount of each gas taken up by the patient’s lungs will be different and could result in hypoxaemia
b) Nitrous oxide causes increased respiratory depression so oxygen saturation may fall
c) It is very important to know how much oxygen your patient is receiving while on nitrous oxide to prevent diffusion into gas-filled body cavities
d) It is only really necessary for higher-risk patients