

- Eckenhoff JE, Enderby GEH, Larson A, et al: Pulmonary gas exchange during deliberate hypotension. *Br J Anaesth* 35:750-758, 1963
- Askrog VF, Pender JW, Eckenhoff JE: Changes in physiological deadspace during deliberate hypotension. *ANESTHESIOLOGY* 25:744-751 1964
- Griffiths DPG, Cummins BH, Greenbaum R, et al: Cerebral blood flow and metabolism during hypotension induced with sodium nitroprusside. *Br J Anaesth* 46:671-679, 1974
- Wildsmith JAW, Drummond GB, MacRae WR: Blood-gas changes during induced hypotension with sodium nitroprusside. *Br J Anaesth* 47:1205-1211, 1975
- Michenfelder JD, Martin JF, Altenburg BM, et al: Air embolism during neurosurgery. *JAMA* 208:1353-1358, 1969
- Stone JG, Sullivan SF: Pulmonary shunting during alveolar hypoventilation. *ANESTHESIOLOGY* 42:443-450, 1975
- Severinghaus JW: Blood gas calculator. *J Appl Physiol* 21:1108-1116, 1966
- Roughton FJW, Severinghaus JW: Accurate determination of O₂ dissociation curve of human blood above 98.7% saturation with data on O₂ solubility in unmodified blood from 0 to 37. *J Appl Physiol* 35:861-869, 1973
- Christoforides C, Hedley-White J: Effect of temperature and hemoglobin concentration on solubility of O₂ in blood. *J Appl Physiol* 27:592-596, 1969
- Stone JG, Sullivan SF: Halothane anesthesia and pulmonary shunting. *ANESTHESIOLOGY* 37:582-587, 1972
- Prys-Roberts C, Lloyd JW, Fisher A, et al: Deliberate profound hypotension induced with halothane: Studies of haemodynamics and pulmonary gas exchange. *Br J Anaesth* 46:105-116, 1974
- Stone JG, Khambatta HJ, Donham RT, et al: Pulmonary shunting during anaesthesia in man. *Can Anaesth Soc J* 22:647-652, 1975
- Eger EI II, Smith NT, Stoelting RK, et al: Cardiovascular effects of halothane in man. *ANESTHESIOLOGY* 32:396-409, 1970
- Bahlman SH, Eger EI II, Smith NT, et al: The cardiovascular effects of nitrous oxide-halothane anesthesia in man. *ANESTHESIOLOGY* 35:274-285, 1971
- Bahlman SH, Eger EI II, Halsey MJ, et al: The cardiovascular effects of halothane in man during spontaneous ventilation. *ANESTHESIOLOGY* 36:494-502, 1972
- Marshall R: Histamine release, pulmonary blood shunts, and rapid, shallow breathing in the dog. *Thorax* 24:51-60, 1969
- Keane NP, Picklerodt VW, McDowall DG, et al: Cerebral circulatory and metabolic effects of hypotension produced by deep halothane anesthesia. *J Neurol Neurosurg Psychiatr* 36:898-905, 1973
- Khambatta HJ, Sullivan SF: Effects of respiratory alkalosis on oxygen consumption and oxygenation. *ANESTHESIOLOGY* 38:53-58, 1973
- Stiles M, Coleman AJ, Leary WP: Some hemodynamic effects of sodium nitroprusside. *ANESTHESIOLOGY* 38:173-176, 1973
- Wildsmith JAW, Marshall RL, Jenkinson JL, et al: Haemodynamic effects of sodium nitroprusside during nitrous oxide/halothane anesthesia. *Br J Anaesth* 45:71-74, 1973
- Adams AP, Clarke TNS, Edmonds-Seal J, et al: The effects of sodium nitroprusside on myocardial contractility and haemodynamics. *Br J Anaesth* 46:807-817, 1974

Monitoring

MODIFIED ALLEN TEST One hundred twenty-eight adults (mean age 40.6 years) of both sexes underwent the standard Allen test. The test consisted of simultaneous compression of ulnar and radial arteries at the wrist while the subject opened and closed his hand several times until the hand was exsanguinated. The subject was then asked to open his hand fully while the radial of the ulnar artery was released. Complete capillary blush of the hand within 6 seconds indicated functional continuity of palmar arch. Ninety-three subjects (73 per cent) showed defects in reperfusion of the hand. A modified test was then performed on the same subjects in a similar manner except that subjects were carefully instructed not to hyperextend the

fingers or the wrist upon release of the clenched fist. All but one person had normal capillary refill after release of either radial or ulnar arteries. A portable Doppler ultrasonic velocity detector with a transmission frequency of 7.9 MHz revealed normal radial and ulnar signals and normal augmentation of velocities in these vessels when the opposite artery was compressed in all but the same person mentioned above, who had no radial artery, showing complete correlation with the modified Allen test. (Kamienki RW, Barnes RW: *Critique of the Allen test for continuity of palmar arch assessed by Doppler ultrasound. Surg Gynecol Obstet* 142: 861-864, 1976.)