Function, Amer. Rev. Resp. Dis. 89: 55 (Jan.) 1964.)

EMPHYSEMA No reliable clinical criteria are available for separation of obstructive chronic pulmonary diseases, emphysema and chronic bronchitis, asthmatic bronchitis and intrinsic asthma. Epidemiological methods linked to autopsy evidence offer the only valid hope of definitely identifying the causative agent of emphysema. Likely the agent is one producing a vasculonecrotic injury followed by repair with minimal fibrosis resulting in a new membrane lining abnormal tissue spaces. Nitrogen dioxide inhalation can produce lesions in animals which may be the same as those of human emphysema. *(Wright, G. W., and Kleinerman, J.: Consideration of the Etiology of Emphysema in Terms of Contemporary Knowledge, Amer. Rev. Resp. Dis. 88: 605 (Nov.) 1963.)*

HYPERBARIC OXYGEN Administration of high pressure oxygen after carbon monoxide intoxication may be effective in two different ways, mainly dependent on the time at which treatment can be started. If given immediately, it restores the oxygen transport function of the blood. If it can only be started after some time oxygen at normal pressure should be administered while preparations for hyperbaric therapy are being made, and even at normobaricity, relatively little time is needed for recovery of the oxygen transport function to an extent sufficient for proper oxygenation of the tissues. However, there is a marked tendency for secondary hypoxia to develop due to cerebral swelling. Following a mild intoxication, administration of hyperbaric oxygen opposes this secondary hypoxia completely. Following a serious intoxication it takes a subsidiary position. Therefore, high pressure oxygen should be combined with or followed by hypothermia in those cases which fail to improve completely with high pressure oxygen alone. *(Sluijter, M. E.: Treatment of Carbon Monoxide Poisoning by Administration of Oxygen at High Atmospheric Pressure, Proc. Roy. Soc. Med. 56: 34 (Nov.) 1963.)*

OXYGEN THERAPY For treatment of hypoxic patients, a concentration of 45 to 60 per cent oxygen in inspired air is desirable. Higher concentrations can be obtained by the use of masks or other special methods such as the closed box, but for continuous administration to bed patients such methods ordinarily are neither necessary nor practical. If carefully applied and supervised, an oxygen concentration of 50 per cent is readily obtained in both the oxygen tent and open box. Among three other methods, viz., oropharyngeal insufflation by nasal catheter, the double nasal cannula, and the open-top plastic face mask, only catheter insufflation gives reliable results. Although the double cannula and plastic face mask are cheap and comfortable, both are inefficient. At 6 liter per minute oxygen flows, average oropharyngeal oxygen concentration with a catheter is 62 per cent. Marked drying of pharyngeal mucosa can be prevented by keeping the water in the humidification bottle at 125° F. A common cause of failure of the method is leakage, especially from water bottle attachments, and the physician should check for actual delivery of oxygen to the patient by listening at the patient's mouth to hear the hissing of oxygen as it leaves the catheter in the oropharynx. Gastric distention or rupture is a danger which must be prevented by not allowing the tip of the catheter to slip into the esophagus. *(Longobardi, A., and others: Oxygen Therapy on Medical Wards, J.A.M.A. 187: 369 (Feb. 1) 1964.)*

PRONE POSITION Ventilation was studied in patients in the prone position while face mask and muscle relaxants were being employed. Duration of anesthesia varied from 15 minutes to over one hour. Determinations of *p*H and P_{CO_2} proved ventilation to be adequate. Simultaneous measurements of blood samples from the aorta and ear lobes showed satisfactory and comparable results. *(Hessler, O., and Rehder, K.: Determination of pH and P_{CO_2} for Measurement of Ventilation in Prone Position with Face Mask, Der Anaesthesist 13: 3 (Jan.) 1964.)*

TRACHEAL RESECTION Resection of a tracheal tumor is ordinarily carried out with an endotracheal tube advanced beyond the tumor. In reported resection of the trachea