OBSTRUCTIVE PULMONARY DISEASE Patients with asthma have less reduction of maximal expiratory flow rate and less increase of expiratory resistance at small lung volumes and during forceful expiration than patients with chronic obstructive pulmonary disease, since in asthma obstruction is due to fixed narrowing of larger airways and in obstructive disease smaller more distensible airways are obstructed. Patients with emphysema have more severe obstruction during forceful expiration at small lung volumes than patients with bronchitis since in emphysema the obstruction is due to loss of support of the smaller airways while in bronchitis it is due to fixed obstruction within them. (*Ting, E. Y., and Williams, M. H., Jr.: Mechanics of Breathing in Chronic Obstructive Pulmonary Disease, Am. Rev. Resp. Dis. 88: 791 (Dec.) 1963.*)

RESPIRATORY-DISTRESS SYNDROME Once the diagnosis of respiratory-distress syndrome, or hyaline-membrane disease has been made, the infant should be maintained in an incubator at an ambient temperature of 32° to 34° C. with a humidity of 80 to 100 per cent. Oxygen should be administered in an amount that is necessary to just clear cyanosis and for only the shortest possible duration. Correction of blood *p*H below 7.20 should be handled with sodium bicarbonate added to glucose solution. Respirators may be necessary to assist or control ventilation through an endotracheal tube or a tracheostomy tube. Both volume-controlled and pressure-controlled devices can be used, although the former may be more effective. Pressures of 25 to 35 cm. of water or more at the endotracheal tube may be necessary to achieve an adequate tidal volume in the range of 6 to 8 ml. per kilogram of body weight at a respiratory rate of 40 to 70 breaths per minute. One of the commonest treatable complications is pneumothorax, which requires immediate thoracentesis. Hyperkalemia generally is controlled with the administration of glucose. (*Cook, C. D., and Cochran, M. D.: The Respiratory-Distress Syndrome of Newborn Infants, New Engl. J. Med. 270: 673 (Mar. 26) 1964.*)

RESPIRATORY DISTRESS SYNDROME Respiratory distress syndrome was encountered in 4 out of 90 rhesus monkey infants after uncomplicated births. A much higher incidence of respiratory distress was observed in an additional 68 infants whose births were complicated by experimental procedures. Oxytocin administered to six mothers was associated with respiratory distress syndrome in all six offspring. (*Windle, W. F.: Respiratory Distress: Relation to Prematurity and Other Factors in Newborn Monkeys, Science 143: 1345 (Mar. 20) 1964.*)

RESISTANCE TO HYPOXIA Increased resistance to hypoxia has been claimed for diverse factors. Of some real value is the production of polycythemia by means other than anoxic hypoxia: (1) by transfusion of red blood cells, (2) by the use of carbon monoxide, (3) by the administration of cobalt chloride. The most practical method for acclimatization and method of increasing tolerance to hypoxia is for an individual to reside for a period of 10 to 14 days at a relatively modest altitude of 8,000 to 10,000 feet. The resistance will last for about 3 weeks, but may be extended indefinitely if the subject goes to altitude daily for one hour. (*Van Liere, E. J.: Resistance to Hypoxia, Arch. Intern. Med. 113: 419 (Mar.) 1964.*)

HYPOXIA AND POLYCYTHEMIA Arterial oxygen tension may be low in patients with polycythemia vera who have no demonstrable co-existent cardiorespiratory disease. The hypoxia may be the result of an abnormality of the pulmonary vasculature. Pulmonary function of 26 patients with polycythemia vera was compared with that of 12 normal subjects. Ventilatory function was normal. The mean arterial oxygen tension was less than 80 mm. in 11 patients and the arterial oxygen saturation was less than 92 per cent in 9 patients. Ventilation to perfusion ratios were altered in some patients and the diffusing capacity was low in all but one of the patients who had a diminished arterial oxygen tension. Hypoxia could not be related to alterations in ventilation-to-perfusion ratios but was significantly related to the diffusing capacity. (*Lertzman, M., and others: Hypoxia*