reasonable care should be taken before rushing into an operation unnecessarily, the general conclusion I have come to is that just as soon as we are convinced that there is an actual mechanical impediment to the passage of air through the glottis, and that the patient is thereby suffering from deficient oxygenation, we should lose no time in preparing to give surgical relief. The chances of the success of the operation are, I think, vastly improved if it be done early, because the longer the dyspnœa has continued, the greater is the resulting asthenia, and the diminished strength of the patient renders him less able to contend against the disease and less amenable to therapeutic treatment. The asthenia by itself we may be able to overcome, but if it be accompanied by severe dyspnœa, it is usually beyond our power. I do not think that there is any particular stage of the disease when we should operate. I should be guided almost entirely by the breathing in each individual case, rather than by other indications, for it is the effect of the breathing which calls for the operation. The recession of the soft parts of the chest wall, especially the supra-sternal notch and intra-sternal depression, drawing down of the larynx at each inspiration, together with complete suppression of the voice, are valuable indications of the amount of obstruction. If the expiration be as labored as the inspiration, it cannot be due to spasm but only to mechanical obstruction from the presence of a foreign substance. Then I think there is no time to lose, but an operation should be done immediately.

On the other hand, it is very doubtful if an operation should be done when the condition of the patient shows that there is practically no chance of success. A patient may be operated on even at the point of death, if that be due almost entirely to asphyxia, but if due to other causes, then there are contra-indications. As contra-indications, I would consider morbid secondary blood poisoning from the absorption of septic matter in the throat, also severe bronchitis, pneumonia, and extension of the membrane downwards into the bronchi. In such conditions it would be practically useless to do an operation with any hope of recovery. The diphtheria following typhoid fever, scarlatina, and measles is said also to be particularly dangerous; but even in these cases, if there is much laryngeal obstruction, relief will at least be afforded to the patient. In general terms, I believe that the only absolute contra-indication to the performance of tracheotomy or intubation is the absence of laryngeal obstruction. When that exists, I am doubtful if one should refuse relief, and it should be done as early as one is convinced that the obstruction is permanent and is so severe that the blood is being insufficiently aërated.

The next question that arises, if you have decided in favor of some surgical interference, is, which operation should be performed? And here I regret that my own experience of tracheotomy has been so limited. The five or six cases of diphtheria on which I have operated, before intubation was much practised in this city, unfortunately, all died; and since I have instituted intubation, I have been so impressed in its favor, by comparison, that I have quite ceased to do tracheotomy in this disease, except in the occasional rare case in which intubation does not give the required relief.

Among the advantages which intubation seems to possess over tracheotomy, may be mentioned the following: Intubation is much better suited to practice among the poorer people, because the after-treatment is not nearly so important. The child breathing through the tracheotomy canula must be surrounded by an atmosphere carefully regulated as to heat and moisture, and must be attended constantly by a skilled nurse. The after-treatment is, of course, important in intubation, but not nearly so much so as in tracheotomy, and poor patients, living in small houses, are quite unable to supply what is needful in that way. Then, intubation is done without an anæsthetic, and even skilled assistants are not necessary, so that practically no preparation is required. It is done almost in a moment, and there is no injury caused to the soft part, no blood or shock, little or no pain. Then there is no wound to become septicæmic, or to slowly granulate afterwards. Inasmuch as the air enters the lungs after intubation by the natural passages, moist and warm, therefore no change need be made in the surroundings from those best suited when there is no laryngeal obstruction, and the tube does not become plugged