



ICU Talk



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Patients admitted to the ICU are critically ill and require constant care, observation, and intensive treatment. Organ failure and oxygen deprivation are the most common complications seen in the ICU. For planning the ICU protocol, a better understanding of the patient's condition and health status is required. An in-depth evaluation of the steps of oxygen transport is important to assess the severity and should be implemented before planning the treatment protocol

Step 1

VENTILATION:- The breathing process. If the patient is not able to breathe the atmospheric air independently, an assistance device or oxygen supplements are provided to the patient. This indicates stage 1 of a critical illness.

Step 2

AIRWAY:- Air movement in the tracheobronchial tree. Usage of accessory muscles and breathing difficulty might indicate airway

obstruction. An incorrectly positioned endotracheal tube can also obstruct the airways. This indicates stage 2 of a critical illness.

Step 3

LUNGS AND CHEST WALL:- Organs for breathing. The chest wall protects the lungs and expands simultaneously during breathing. Abnormal chest movement depicts respiratory distress. This indicates stage 3 of a critical illness.

Step 4

PERFUSION:- Adequate blood supply with oxygen and nutrients to the tissue cells. Inadequate supply can lead to organ dysfunction and tissue hypoxia. This indicates stage 4 of a critical illness.

Step 5

DIFFUSION:- The process of gaseous exchange through the thin wall of alveoli to the bloodstream. The diffusion of water, salt, and waste occurs in the kidney, and the diffusion of calcium from meals takes place in the intestines. The alveolar-arterial oxygen gradient denotes gas diffusion. This indicates stage 5 of a critical illness.

Step 6. MYOCARDIAL FUNCTION: Heart Action. The heart works in conjunction with the lungs to ensure adequate oxygenation for body tissues and organs. Abnormal heart function can lead to a heart attack, heart failure, or any other heart condition. This indicates stage 6 of a critical illness.

Step 7

CIRCULATION:- The heart pumps the blood through blood vessels, which supply all organs and cells of the body. Difficulty in circulation commonly occurs due to obstructions in blood vessels that lead to inadequate supply to the organs, peripherals, and targeted sites. This indicates stage 7 of a critical illness.

Step 8

TISSUE EXTRACTION:- Oxygen is extracted from the bloodstream and used as fuel for tissue function. All nitrogenous waste and carbon dioxide from tissues are received by blood. Difficulty in extraction leads to hyper-



capnia or hypercarbia. This indicates stage 8 of a critical illness.

Step 9

VENOUS RETURN:- Return of carbon dioxide-rich blood from all sites back to the heart via veins. Inadequate venous return causes difficulty in all steps of oxygen transport. This indicates stage 9 of a critical illness.

Constant monitoring of the vitals and checking the alignments of all external devices is an important part of assessment. Verifying the stages clinically with the investigation report is an evident ICU protocol. Understanding the severity and stage involved in an ICU patient can help in better planning of treatment and rehabilitation protocol. An in-depth assessment of the patient is the first step towards planning the rehabilitation protocol.