



Announcement

The goal of the credential maintenance program is to strengthen the relationship between competencies of credential holders and expectations linked to those credentials. Participant feedback indicates credentialed practitioners find value and meaning in the assessments.

As an added value, we would like to share the list of **Most Missed Concepts** identified by the Credential Maintenance Program Assessments. It is our hope that this information will be useful to educators, managers, and practitioners while stimulating conversation or planning to address these gaps and to enhance understanding of important concepts impacting patient care.

Most Missed Concepts on the 2023 Credential Maintenance Program Assessments

Someone credentialed in the Adult Critical Care Specialty is expected to recognize:

- When applying the START (Simple Triage and Rapid Assessment) method, adult patients with a respiratory rate greater than 30 should be tagged as red indicating a priority for treatment.
- HFCWO is recommended as airway clearance therapy in a patient with a neuromuscular disorder, glottic dysfunction, and bulbar involvement. Mechanical insufflation/exsufflation can be used for airway clearance therapy for patients with neuromuscular disorders but is contraindicated for a patient with partial glottic paralysis.
- An overdamped arterial waveform can be caused by excessively long tubing, which especially may have been placed in line to facilitate an MRI scan.

Someone credentialed in the Neonatal / Pediatric Specialty is expected to recognize:

- Positive pressure ventilation should be considered to support patients in severe respiratory distress when a flail chest is present.
- Methemoglobinemia can present with cyanosis despite receiving a high percentage of supplemental oxygen. Topical anesthetics, such as benzocaine or lidocaine, can cause methemoglobinemia.
- DPI inhalation technique includes a quick and deep breath to actuate the device and distribute the medication optimally in contrast to the slow and deep technique associated with using an MDI.
- When an infant is requiring a high level of invasive PC ventilation and is breathing over the set rate, decreasing the ΔP is the best way to first evaluate the infant's ability to continue toward mechanical ventilation liberation.

Someone credentialed in Pulmonary Function Technology is expected to recognize:

- The ATS/ERS Standardization of Spirometry 2019 Update recommends withholding LABA medications for 24 hours before bronchodilator responsiveness testing. Before making an exception to proceed with testing after a patient has used a LABA medication anyway within the previous 24 hours, the pulmonologist should be contacted to determine whether the testing should proceed.
- When a diluent is used during a methacholine test, the postdiluent FEV₁ measurement is the baseline from which the 20% decrease is calculated.
- According to the 2017 ERS/ATS Standards for Single-Breath Carbon Monoxide Uptake in the Lung, the DLCO obtained from a 3-liter syringe check should be less than or equal to 0.5 mL/min/mm Hg. A higher than expected DLCO value with normal values for the V_A and IVC indicates the gas analyzers are malfunctioning, so patient testing should stop.

- When a patient with neuromuscular disease performs spirometry, the flow may not increase rapidly enough to satisfy the back-extrapolated volume criterion. A technologist may need to override the acceptability criterion built into the system to have the results reported anyway.

Someone credentialed in the Sleep Disorders Specialty is expected to recognize:

- No missed concepts were identified this year.

Someone credentialed in Respiratory Therapy is expected to recognize:

- While many patients with cystic fibrosis take dornase alfa as an enzyme that decreases mucous viscosity, when such a patient has a pulmonary infection, an antibiotic should be expected, such as tobramycin (TOBI) or aztreonam (Cayston).