Position Statement

Insertion and Maintenance of Arterial Cannulation Lines by Respiratory Therapists

The American Association for Respiratory Care (AARC) endorses the use of qualified and competent respiratory therapists to insert arterial cannulation lines and to perform care and maintenance of arterial lines.

The respiratory therapist’s education provides extensive training in maintenance of normal acid-base balance, oxygenation and oxygen delivery, ventilation, and interpretation and management of arterial blood gases. These fundamentals of Respiratory Care education make the respiratory therapists uniquely qualified to undertake further education to be competent in this procedure.

Respiratory therapists perform blood gas sampling most often via radial punctures. However, when frequent arterial blood gas measurements are required and when continuous monitoring of arterial blood pressure is necessary, respiratory therapists cannulate and maintain arterial lines.

The requisite education for a respiratory therapist to be qualified to insert and maintain cannulation of arterial lines should include specific training, proof of competence and continuing education as outlines by those institutions that use respiratory therapists to perform this procedure.

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