

# Implementing a Sizing Chart for Nasal Cannula Placement to Decrease Associated Pressure Ulcers in Infants

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## BACKGROUND

The Joint Commission definition of a “Pressure Ulcer” is a broader term that includes decubitus ulcers but also includes any ulcerations associated with pressure. Over a three-month period in 2015 the Intensive Care Nursery (ICN) at Thomas Jefferson University had five patients who developed pressure ulcers due to placement of an improper size nasal cannula being used for that patient. Infant nasal cannulas are typically classified as being for micro premature, premature, neonate, infant and intermediate infant size patients. There is no instruction by manufactures for fitting a cannula to the actual size of the patient in kilograms. Cannulas also were not of a universal size for various manufactures.



## Nasal Cannula Size Chart

	< 750g	750 - 1000g	1000 - 2500g	2500 - 4000g	> 4000g
Ram Cannula	Micro Premature	Premature	Neonate	Infant	Consider Pediatric
Salter Cannula	*****	Premature	Neonate	Infant	Intermediate Infant
Vapotherm Cannula	Premature	Nepnate	Infant	Intermediate Infant	Consider Pediatric
Fisher & Paykell Cannula	Premature	Neonate	Infant	Intermediate Infant	Consider Pediatric

## METHOD

Using manufacture specifications and measurements taken by our Biomedical department, a sizing chart was developed to fit the proper size cannula based on a patient’s weight in kilograms. Four different manufactures were used in our nursery.  
(See table above)

## RESULTS

Since the implementation of the Nasal Cannula Size Chart in the Intensive Care Nursery at Thomas Jefferson University Hospital, the incidence of pressure ulcers associated with the use of nasal cannulas has remained zero in the initial five-month period.

## CONCLUSION

The implementation and use of a size chart based upon a patient’s weight for nasal cannula use by hospitals may be a vital tool in reducing the incidence of pressure ulcers associated with nasal cannula use in the infant population; it may also be a vital tool which should be included in the manufacture packaging material. Further investigation is needed to analyze data after one year to confirm our hypothesis the use of a Nasal Cannula Size Chart reduces pressure ulcers.