

## Background

Historically there was no formalized process for the fit/sizing of cervical collars. Nurses applied the collars, which were adjustable and did not always fit appropriately. There were few options for patients that had unusual anatomy. There was a significant volume of device related hospital acquired pressure injuries (HAPI) related to cervical collars.

## Objective/Purpose/Hypothesis

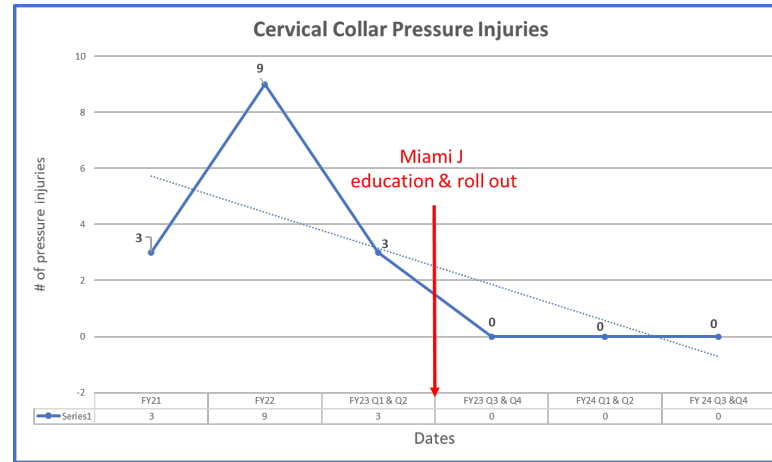
The purpose of developing a formalized process for cervical collar fitting and follow up of collar maintenance was to ensure optimal immobilization to prevent further injury, standardize prevention of skin injury and improve assessment of skin and collar hygiene.

## Methods

An interdisciplinary team developed a formal process for the fit and sizing of cervical collars. The process begins upon arrival to the ED. The ED staff applies the best fitting collar for that patient. Within 24 hours PT/OT staff consult on the patient, check and optimize the collar fit and place a consult note with photos in the patient's chart. The CNS rounds several times per week and checks the collar fit. During the CNS rounds, collar care is also evaluated via visual inspection and chart audit. This ensures that collar care is being done appropriately. The CNS/PT/OT are available anytime to collaborate for staff fit and collar questions.

## Results

This interdisciplinary collaboration has completely eradicated HAPI related to cervical collars in the 8 months since we adopted the process. There has been an increase in teamwork and collaboration between nursing and PT/OT.



## Conclusions & Implications for Practice

The collaboration between therapy and nursing to implement a change in product and fit/sizing protocol has yielded a cost savings for the institution in the form of enterprise specific cost avoidance related to significant reduction of HAPI attributed to cervical collars. The Agency for Healthcare Research and Quality estimates that HAPI costs range between \$20,900 to 151,700 per incident, which demonstrates a significant cost avoidance. Conservatively as compared to FY 22 and the first half of FY 23 there has been a cost avoidance of \$250,800 to potentially \$1,820,400. Current data shows zero HAPI attributed to cervical collars since rollout in January of 2023. The collars themselves are an over \$40.00 savings per collar over the former product saving \$225,394 as of 10/2023. Additionally, therapy has been able to generate revenue by billing CPT codes for collar fitting.

## PT/OT Consult Note

<b>Collar Issued</b>	Miami J 300 Short
<b>Total Treatment Time (minutes)</b>	
<b>Session Detail</b>	
Patient was custom fitted with cervical orthosis as ordered while in supine position. Family/caregiver was present at bedside. Patient was received with Miami J 400 Regular donned. Cervical collar appeared to be ill-fitting and Miami J 300 Short was issued.	
The patient's skin under the collar was visualized without evidence of skin breakdown.	
Training was provided to patient and family/caregiver on purpose of splint, appropriate fit, prescribed wear schedule, and care of collar. Demonstrated to family/caregiver how to correctly don/doff collar when switching out the pads for laundering to maintain cervical spine precautions and patient safety. Notified RN post-fitting of patient's appropriate collar size.	

## Collar Alignment



## Fit Guide

200S SUPER SHORT/CYPHOTIC 10%	200L STOUT 5%	250 XS 5%	500 TALL 5%	400 REGULAR 5%	300 SHORT 5%
Does your patient have a hypophic (chin on chest) neck?	Does your patient have a very large neck circumference?	Does your patient have a very short, thin neck?	Does your patient have a long, tall neck?	Is your patient female?	All other adults
<ul style="list-style-type: none"> <li>Hypophic</li> <li>Chin on chest</li> <li>Geriatric</li> <li>Osteoporotic and/or antilyosing spondylitic</li> </ul>	<ul style="list-style-type: none"> <li>For a neck circumference &gt;29", try the Miami J Bariatric Collar (M1 200B)</li> <li>Very large neck circumference</li> <li>Chest or massive shoulders</li> </ul>	<ul style="list-style-type: none"> <li>Very short thin neck</li> <li>Principally female</li> <li>More prevalent in the Asian population</li> <li>Rare</li> </ul>	<ul style="list-style-type: none"> <li>Long tall neck</li> <li>Young women</li> <li>Adolescents</li> </ul>	<ul style="list-style-type: none"> <li>Standard size for mature women</li> <li>Thin, mature men</li> </ul>	<ul style="list-style-type: none"> <li>Standard size for mature men</li> <li>Short necked women</li> </ul>