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their preceding RSA (and HR); 2) there are no concurrent relationships between caregiver and infant cardiac indicators across epochs; and 3) generally, caregiver RSA (and HR) did not predict subsequent infant RSA (and HR) and vice versa.

Discussion/Conclusions: Results suggest coordination of caregiver and infant pain-related distress in a vaccination context does not manifest at 12 months. Statistical modeling (e.g. growth curve modelling) that discern groups of caregiver-dyads and their response

trajectories should be used to better elucidate patterns of coordination (or lack of coordination) between caregivers and their infants, and the factors that influence patterns of coordination.

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Exploration of the Nociception Level (NOL)TM Index for Pain Assessment during Endotracheal Suctioning in Mechanically Ventilated Patients in the Intensive Care Unit

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Introduction/Aim: Pain is a common symptom in intensive care unit (ICU) patients. Alternative pain measures are necessary as many patients are non-communicative. Although behavioral pain measures (e.g., Critical-Care Pain Observation Tool or CPOT) are available, physiological measures are lacking. The Nociception Level (NOL)TM index incorporates simultaneously multiple physiological parameters (i.e., heart rate and its variability, pulse plethysmograph amplitude, skin conductance level, number of skin conductance fluctuations) to measure pain, but its use in the ICU is new. We explored the NOL for pain assessment in mechanically ventilated ICU patients during endotracheal suctioning.

Methods: A prospective cohort study was performed in a medical-surgical ICU in Montreal, Quebec. Data were collected at rest (T1), during endotracheal suctioning (T2), and 15 minutes post-procedure (T3). The NOL index ranges from 0 to 100 with values >25 indicative of pain. The patient's self-report of 0–10 pain intensity and 0–8 CPOT scores were also obtained. Friedman tests were used.

Results: Sixteen patients (56% males, mean age = 65) were included. The NOL (median, [interquartile range]) was significantly increased at T2 (34.86 [23.57–45.57]) compared with T1 (11.21 [4.48–24.56]) and T3 (13.04 [6.12–20.41]) ($p < 0.001$). Pain intensity and CPOT scores were higher at T2 (medians of 5 and 4, respectively) compared with T1 and T3 (medians of 0 for both scores) ($p < 0.001$).

Discussion/Conclusions: Consistent with pain intensity and CPOT scores, the NOL values were higher during endotracheal suctioning compared to pre/post-procedure. The NOL is an interesting pain assessment method requiring further validation testing in the ICU.

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