

INTERVENTION EFFECTIVENESS OF THE IMPLEMENTATION OF INFANT PAIN PRACTICE CHANGE (ImPaC) RESOURCE FOR MINIMIZING PROCEDURAL PAIN IN HOSPITALIZED INFANTS

AUTHORS

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INTRODUCTION

The Implementation of Infant Pain Practice Change (ImPaC) Resource consists of multifaceted evidence-based (EB) implementation strategies that address the persistent knowledge-to-practice gap in procedural pain prevention and treatment in hospitalized infants

GOAL

To evaluate the Resource clinical effectiveness regarding:

- the frequency of painful procedures
- the use of validated pain assessment tools and
- pain treatment interventions associated with painful procedures

METHODS

Study design: Implementation science hybrid type 1 design including a cluster randomized trial

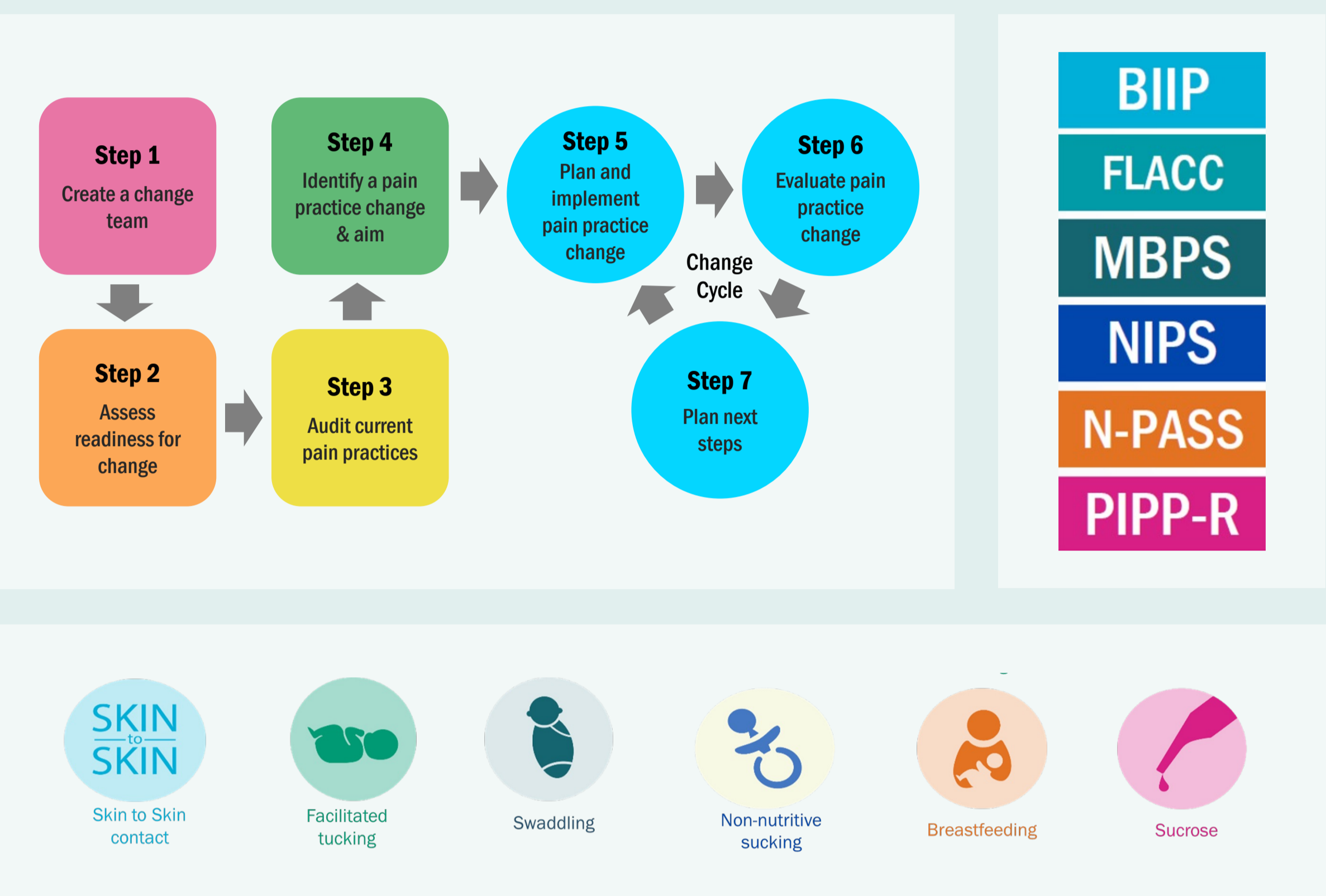
Canadian NICUs with >15 beds stratified by care level (Levels 2 and 3) were randomized to ImPaC intervention (INT) or standard practice (SP) groups

INT NICUs received ImPaC training and had online access for six months; SP NICUs continued with usual pain practices for six months

An intention-to-treat analysis determined the clinical effectiveness of the ImPaC Resource

The study protocol received ethics approval and was registered at ClinicalTrials.gov (NCT03825822)

ImPaC Resource



“ In units where the Resource was implemented, infants had fewer painful procedures and improved pain practices ”

CONCLUSION

In intervention units where the Resource was implemented, there were:

- Fewer painful procedures
- Increased pain assessment using valid tools
- Pain treatment interventions were higher in Level 2 but not in Level 3 NICUs

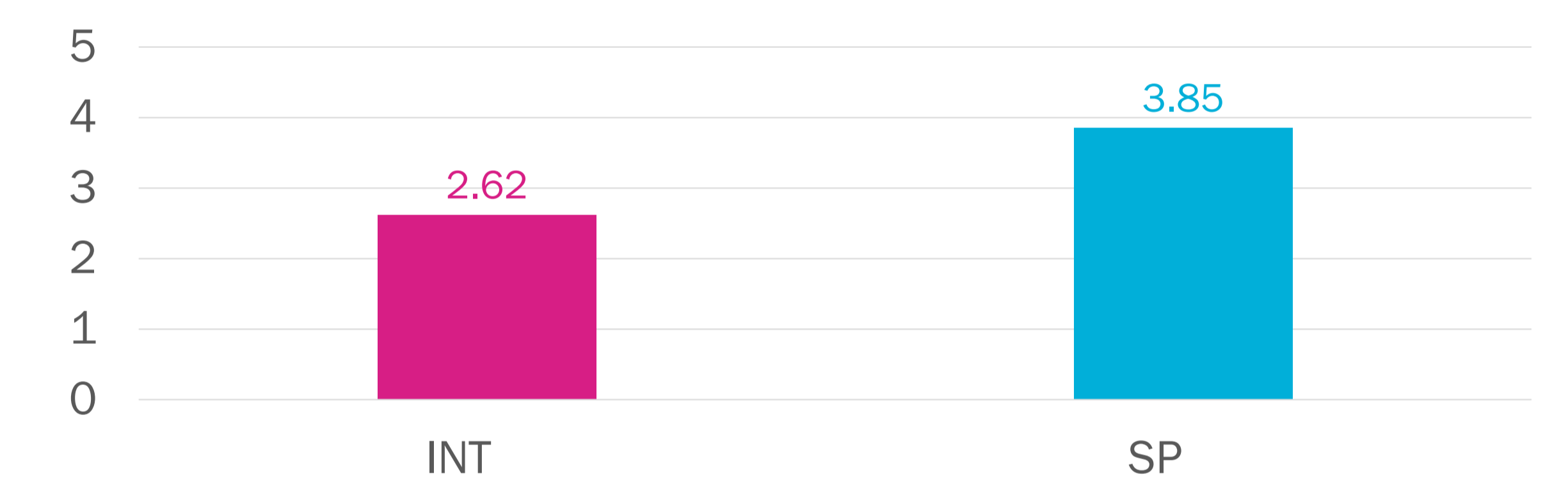
Further exploration of factors that facilitate or hinder the implementation of the Resource will inform researchers and clinicians how to decrease procedural pain and improve child health outcomes

RESULTS

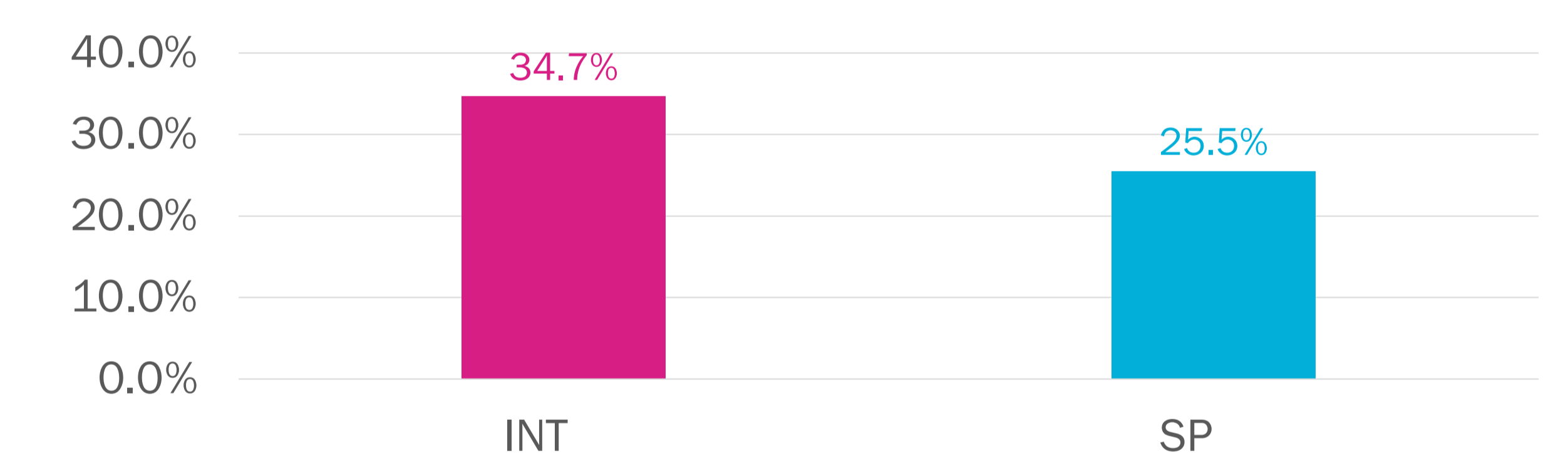
Medical records of ~30 infants/site (n=679; INT= 354, SP=325) were reviewed during a 24-hour interval following the 6-month implementation period

Infants differed on gestational age (GA); those in the INT group were less mature [31.6 (±4.5) vs. 33.5 (±6.1) weeks GA, p<0.001] thus all analyses were adjusted for GA

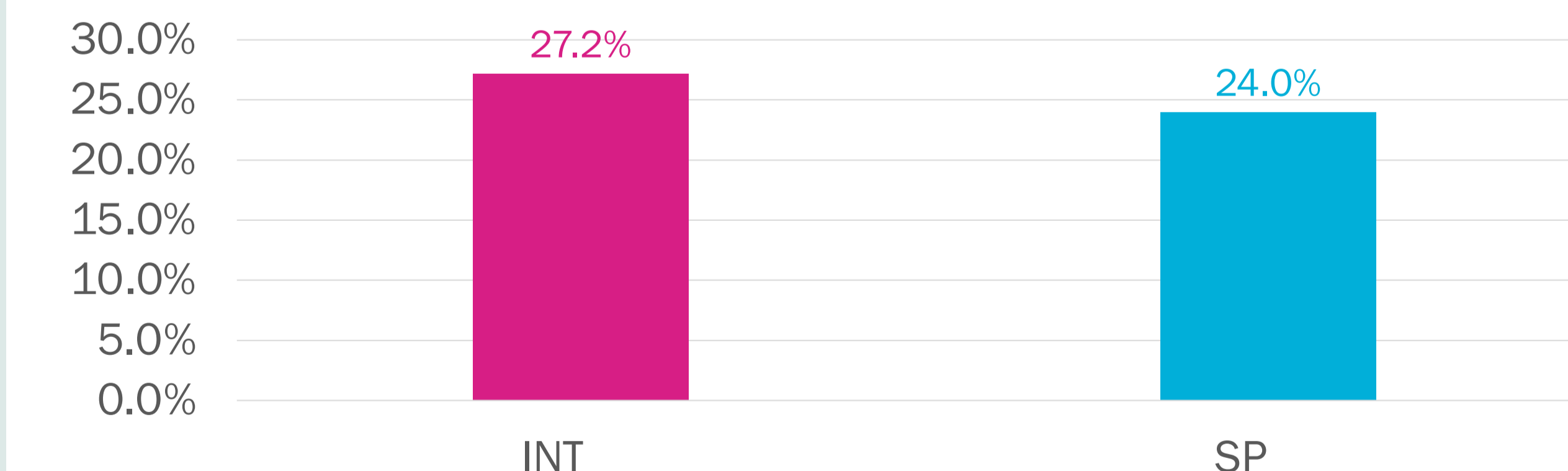
FREQUENCY OF PAINFUL PROCEDURES (p<0.001)



PROPORTION OF PROCEDURES WITH PAIN ASSESSMENT (p<0.001)



PROPORTION OF PROCEDURES WITH PAIN TREATMENT (p=0.053)



PROPORTION OF PAINFUL PROCEDURES WITH PAIN TREATMENT

