

Critical Reflective Practice Improves Nurse’s Attitudes Towards Burn Resuscitation

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Introduction

The Burn Resuscitation Critical Reflective Practice (CRP) was initiated as nurse lead, multi-disciplinary meetings to review the first 48 hours of admission for burn patients with injuries over 20% total body surface area (TBSA) and those requiring fluid resuscitation. All multi-disciplinary team members were invited to take part in monthly CRP discussions.

The problem identified was that on average, burn resuscitation patients with >20% TBSA injuries were being over resuscitated with crystalloids in the first 24 hours of admission.

The goals of the CRP are to:

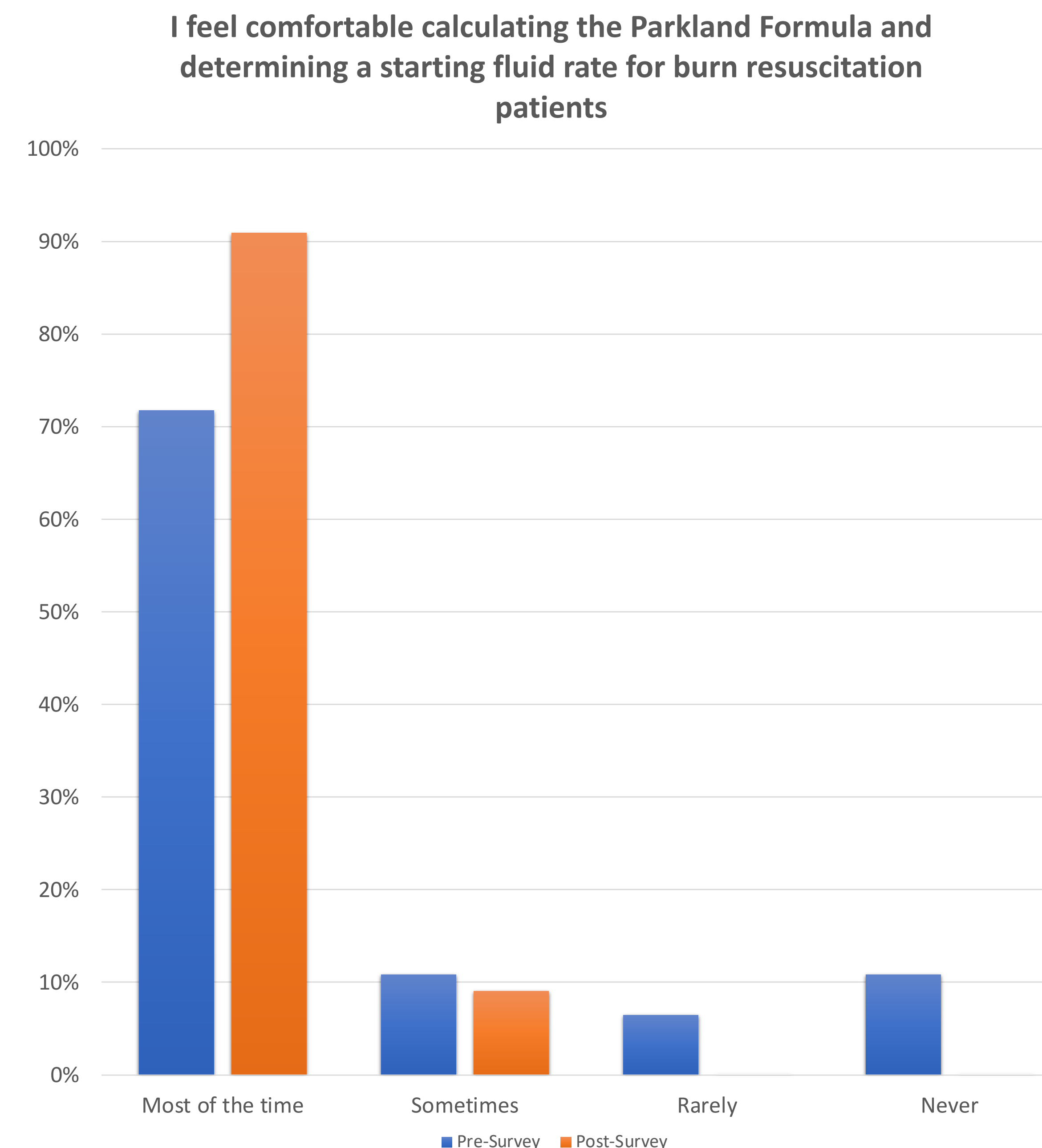
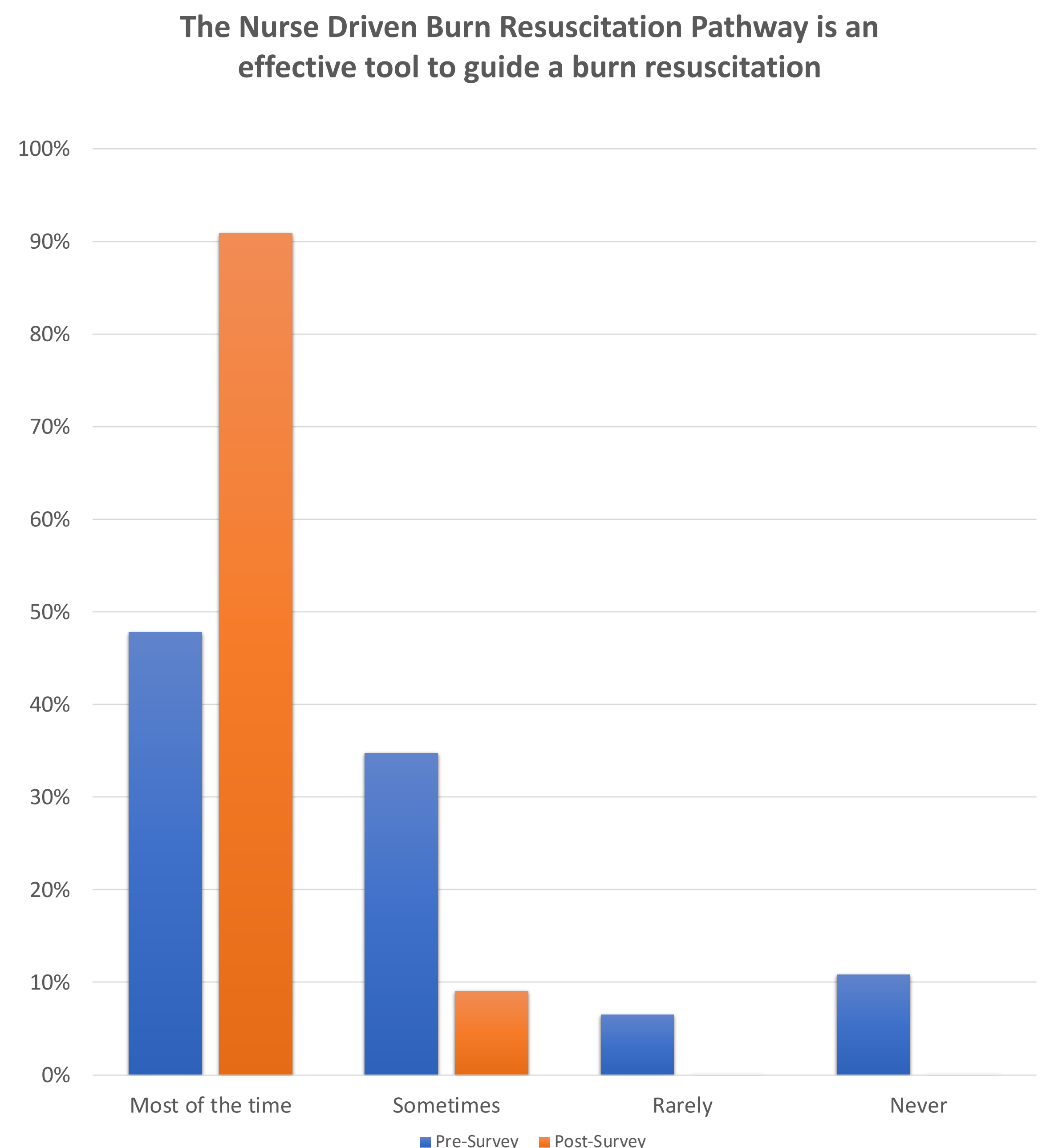
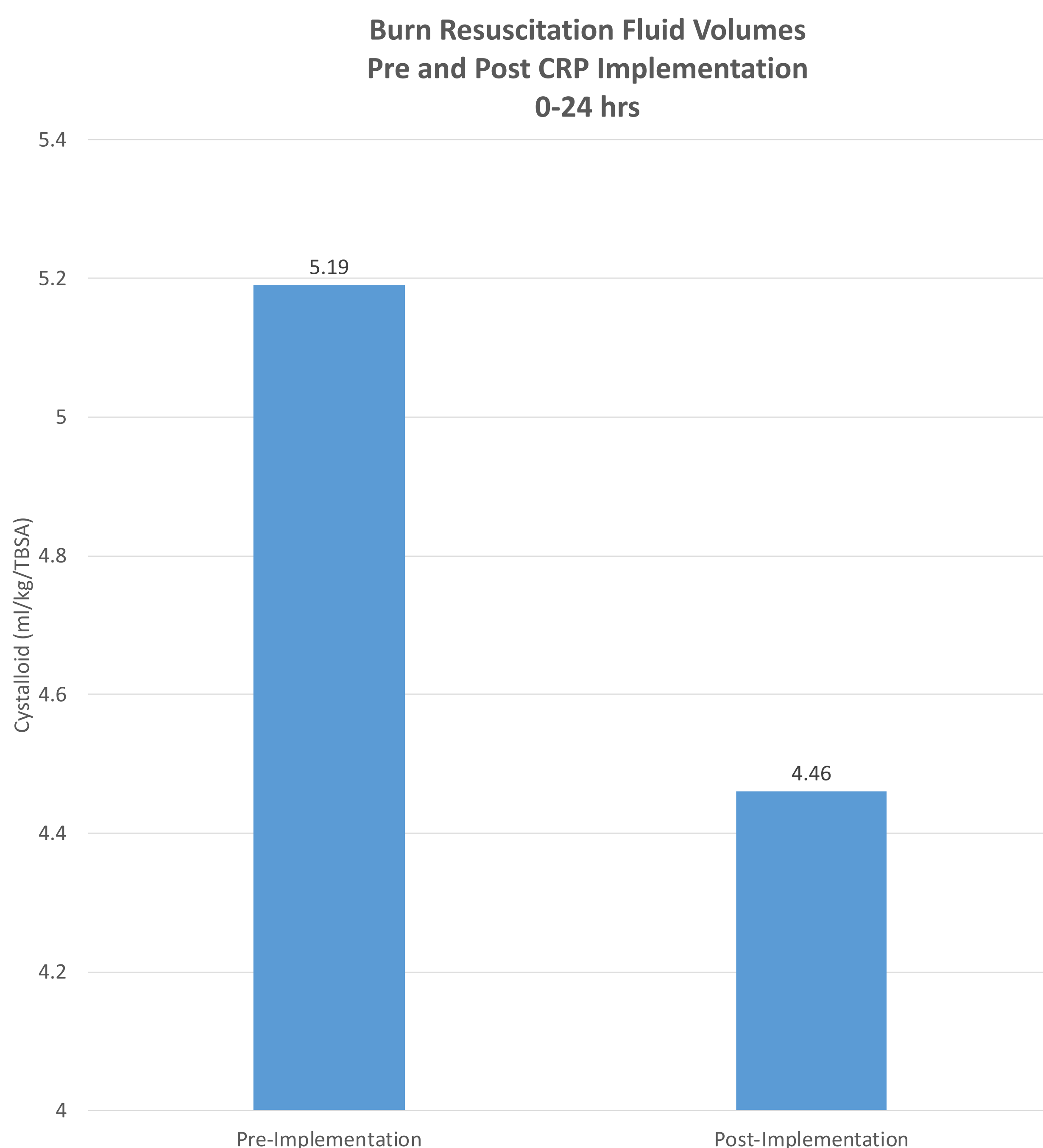
- 1) Increase knowledge of the current Nurse Driven Burn Fluid Resuscitation Pathway
- 2) Improve communication between interdisciplinary team members during the burn resuscitation
- 3) Decrease crystalloid fluids given in the first 24 hours after admission

Materials and Methods

The CRP was initiated in October 2018. In preparation for the CRP, chart reviews were performed to gather data from each resuscitation (i.e. urine output, fluids, labs, events). Discussions were held with staff that were involved in the first 48 hours of resuscitation regarding any communication or process issues that took place. Patient data was then presented at monthly CRPs and staff members present would be free to discuss issues, and ask questions about the resuscitation. One hour nursing CEU credit was offered for attendance.

Multi-disciplinary team members were surveyed prior to CRP to assess comfort and competence with the current resuscitation pathway and communication with providers. 46 surveys were received prior to initiating CRP. After initiating CRP October 2018- July 2019, staff members that had attended >1 CRP were post-surveyed.

Crystalloid fluid volumes delivered in the first 24 hours after admission for each patient were monitored and reviewed at each CRP.



Results

9 CRPs were held from October 2018- October 2019. Between January 2017- October 2018, the average ml/kg/ TBSA was 5.19ml/kg/TBSA. Between October 2018- July 2019 post-CRP implementation, the average ml/kg/ TBSA was 3.86 down from 5.17 ml LR/ kg/TBSA in the first 24 hours of resuscitation.

The following three new practices were implemented based on discussions at the CRP:

- 1) Decrease fluids by 200ml/ hr (instead of 100) when UOP is >100/ hr at least 2 hours into resuscitation;
- 2) Double sign by 2 RNs required when calculating Parkland Formula starting rate and implementing nurse driven pathway;
- 3) New guideline created to guide communication between Burn Charge RN and trauma bay staff when burn resuscitation patient arrives

Post- survey data showed an increase in comfort communicating with physicians regarding resuscitation and an increase in comfort and confidence in calculating the Parkland Formula.

Subjective Responses from CRP Participants

“Having the guideline present when communicating with team allows clear direction and easy reference when intervention is needed. Key areas of improvement have been identified and added to the guideline to help remind everyone during the stress of the resuscitation phase. Having a dual sign off for fluid rate was a great addition. Being able to titrate fluids down faster based on output saves extra paging of MDs and more autonomy.”

“The reflective practice meetings help engage our unit and going over case studies increases our knowledge and closes the knowledge gap. Communication with attending’s and knowing their expectations has definitely gotten better. I feel we have not over resuscitated any of our new burn patients.”

“Reflective practice has created an environment focused on bridging gaps among providers/ caregivers with more experience in burn resuscitations and those that do not. It allows us to question ourselves and the decisions we’ve made. It has allowed us to improve communication among all caregivers on our burn team when managing a burn resuscitation.”

Conclusion

Crystalloid fluids given in the first 24 hours decreased from 5.19 to 4.46 ml/kg/TBSA post-CRP implementation. Three new practices were implemented as discussed in results. Staff surveys and statements showed that staff felt more comfortable communicating with team members/ physicians and with calculating the Parkland formula. Staff had positive responses on the post- survey as seen in the subjective data responses.

Applicability of Research to Practice

CRP can be implemented into practice in nearly any hospital setting to facilitate discussions of patient care. Our monthly CRPs will be continued to discuss all burn resuscitation patients received during the prior month. CRP allows burn team members to learn and modify their practice whether they were directly involved in the resuscitation in question or not.

Learning is promoted through open discussion of things that went well during the resuscitation while also identifying areas for improvement. Collaborative learning through CRP has helped improve communication between team members and decrease overall resuscitation fluids received in first 24 hour period after admission.

References

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