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The Royal Australasian College of Physicians' submission to the Ministry of Health

National guidelines for newborn pulse oximetry screening

Haratua 2021

Introduction

The Royal Australasian College of Physicians (RACP) welcomes the opportunity to submit feedback on the Ministry of Health's proposed national guidelines for newborn pulse oximetry screening.

The RACP works across more than 40 medical specialties to educate, innovate and advocate for excellence in health and medical care. Working with our senior members, the RACP trains the next generation of specialists, while playing a lead role in developing world best practice models of care. We also draw on the skills of our members, to develop policies that promote a healthier society. By working together, our members advance the interest of our profession, our patients and the broader community.

Overall Position

The RACP believes that consistent nationwide implementation of newborn pulse oximetry screening has significant potential benefits for health outcomes. This move is concordant with the intention to provide nationally consistent care, as accomplished by the centralisation of District Health Boards (DHBs) under the newly announced body, Health New Zealand[1].

Pulse oximetry has been used as a screening tool internationally and has a significant weight of evidence supporting its efficacy[2] [3]. In conjunction with other screening tools, it can reduce the number of infants who are late-diagnosed with congenital heart defects. Use in Aotearoa NZ has been limited, and dependant on the approach of specific DHBs, leading to inequitable access in different areas. The implementation of this important tool must avoid this in the future, as pulse oximetry has been predicted to have the greatest benefit to the most deprived communities in Aotearoa NZ.

Inequitable Service Delivery

As noted, the feasibility study conducted by the Liggins Institute, resulted in inequitable service delivery, with lower screening rates achieved for Māori and Pasifika[4]. This was caused by the voluntary nature of the study, alongside the impact of individual perceptions and institutional constraints. Much of this will continue to impact upon service delivery once national guidelines and usage are implemented.

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[1] New Zealand Government. Building a New Zealand Health Service that works for all New Zealanders [Internet]. Wellington: New Zealand Government; 2021. Accessed 24 May 2021. Available from: https://www.beehive.govt.nz/speech/building-new-zealand-health-service-works-all-new-zealanders.

[2] Cloete E, Gentles T, Alsweiler J, Dixon L, Webster D, et al. Should New Zealand introduce nationwide pulse oximetry screening for the detection of critical congenital heart disease in newborn infants?. N Z Med [Internet]. 2017; 130(1448): 64-69. Accessed 24 May 2021. Available from: https://assets-global.website-files.com/5e332a62c703f653182faf47/5e332a62c703f6d5b72fd009_Cloete%20FINAL.pdf.

[3] Plana N M, Zamora J, Suresh G, Fernandez-Pineda L, Thangaratinam, S, Ewer A K. Pulse oximetry screening for critical congenital heart defects. Cochrane Database Syst Rev [Internet]. 2018. Accessed 24 May 2021. Available from: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD011912.pub2/full.

[4] Liggins Institute. Newborn Pulse Oximetry Screening in New Zealand Feasibility Study Steering Committee Report and Recommendations [Internet]. Auckland: The University of Auckland; 2019. Accessed 24 May 2021. Available from: https://cdn.auckland.ac.nz/assets/liggins/docs/Newborn%20Pulse%20Oximetry%20Screening%20in%20NZ%202019%20Report.pdf.

This is particularly important, as in the wider context Māori and Pacific infants are less likely to survive rare heart defects, with the causes currently under investigation[5]. Previously, investigations into inequities in the incidence and survival of one such defect, hypoplastic left heart syndrome, found that Māori and Pacific babies were more likely than Pākehā babies to receive palliative care rather than active treatment[6]. This illustrates the challenges that influence health outcomes under our current health system organisation, and that must be addressed in reform to come.

Consultation Questions

1. **Do you have any feedback or concerns about the proposed screening algorithm?**

The RACP does not have any concerns with the proposed screening algorithm. Despite this, post implementation evaluation and audit must be performed, to ensure that screening is being carried out equitably. Algorithmic bias is an ongoing concern, as noted by a review of algorithms used in Government, and it may only be possible to identify this after its practical use[7].

2. **What do you see as the implications or challenges related to implementing pulse oximetry screening in your DHB, and how do you propose to innovatively address these?**

RACP members provide care across all DHBs in Aotearoa New Zealand. As such, our members face a diverse range of situations and challenges across the breadth of their work. Challenges to implementation are most likely to be faced in areas suffering from significant time, workload and workforce pressures. Equally important are the adverse outcomes resulting from racism and culturally unsafe practice found to be endemic in our health sector, which have significant impacts on whānau and health care workers. Providing an appropriate explanation of the screening process, and the benefits therein, is an important part of empowering patients and their whānau in their care[8]. This must be provided for, within the time pressures of the hospital environment.

3. **Do you have any further feedback on the recommendations in this discussion document?**

Newborn pulse oximetry screening can make a difference for the most marginalised and overburdened in our society, and improve the lives of tamariki into the future. The RACP wishes to see this implemented across Aotearoa New Zealand in a manner which provides equity of outcome for all, and that can best improve health outcomes. We believe that the guidelines provided within the consultation document are well founded, and with proper oversight and review moving forward, have the potential to achieve this.

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[5] Watkins S. Ethnicity changes the odds for babies with heart defects [Internet]. Auckland: E-Tangata; 2021. Accessed 24 May 2021. Available from: https://e-tangata.co.nz/comment-and-analysis/ethnicity-changes-the-odds-for-babies-with-heart-defects/.

[6] Liggins Institute. Fewer Pacific and Māori babies survive with heart condition [Internet]. Auckland: The University of Auckland; 2018. Accessed 24 May 2021. Available from: http://www.liggins.auckland.ac.nz/en/about/news/news-2018/fewer-pacific-and-maori-babies-survive-with-heart-condition.html.

[7] The Department of Internal Affairs, Statistics New Zealand. Algorithm Assessment Report [Internet] Wellington; 2018. Accessed 24 May 2021. Available from: https://www.data.govt.nz/assets/Uploads/Algorithm-Assessment-Report-Oct-2018.pdf.

[8] National Health Committee. Screening to Improve Health in New Zealand Criteria to assess screening programmes [Internet]. Wellington: National Health Committee; 2003. Accessed 24 May 2021. Available from: https://www.nsu.govt.nz/system/files/resources/screening_to_improve_health.pdf.

Conclusion

The RACP thanks the Ministry of Health for the opportunity to provide feedback on this consultation. To discuss this submission further, please contact the NZ Policy and Advocacy Unit at policy@racp.org.nz.

Nāku noa, nā

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