

To the Cardiac Sonography leadership team, Cardiovascular directorate

I write on behalf of the Imaging Working Group of the New Zealand division of the Cardiac Society of Australia and New Zealand, in response to the Discussion Document for Cardiac ultrasound reporting sonographer dated 29th April 2025.

Firstly I would like to thank you for including us in this discussion. However such is the frequency of the meetings, the consultation end period of the 9th of May is not sufficient for a comprehensive response.

We have a number of concerns about such a proposal and believe this proposal harms the provision of cardiac care and as such do not endorse this document.

1. What is an echocardiogram report?

It may help if at first we define what an echocardiogram report is.

An echocardiogram report includes technical details of the study including measurements and a summary statement of these findings by the technician or cardiac sonographer. It answers the question posed in the request and compares important differences between previous studies. The conclusions shall answer the clinical question and be clinically driven and orientated towards disease management and treatment¹⁻³

Therefore in alignment with this the CSANZ expected standard of care is that an echocardiogram report is constructed collaboratively by both the sonographer and the imaging cardiologist.

The union-defined “reporting sonographer” deviates from national and international guidelines of the role of the cardiac sonographer, and refers to the level of remuneration that can be justified.

‘A reporting sonographer is defined as a Sonographer who is ‘accredited and endorsed to work autonomously to authorise final clinical sonography reports. While appropriate supervision is available where necessary, for example for complex clinical presentations, the reporting sonographer acts as the primary responsible practitioner for the examination and final report.’

The proposal of making the sonographer’s preliminary technical report final is simply **foregoing the cardiologist** clinical input to echocardiography. This is foregoing the expertise of imaging cardiologists who have acquired advanced echocardiography skills for 1-2 years in local or overseas fellowship after qualifying as a cardiologist. The reason for such long training reflects the fact that echocardiography reporting is one of the hardest tasks within cardiology and effects not only the management of cardiac issues but also management across a wide range of specialities and disease processes.

Therefore we would request that this statement be corrected to

Reporting Sonographer is defined as a Sonographer who is ‘*accredited and endorsed to work autonomously to authorise final technical descriptions of echocardiograms*’. This would mean results are distributed without a clinical report and since the majority of echocardiograms are performed to answer a clinical question which will not be answered, this poses a clinical risk.

2. Quality

We all agree professionally that we would like to provide support to our senior sonographers reporting more independently. Any possibility of expanding scope of practice should always be explored.

This proposal of eliminating the cardiologist input into a sonographer report is completely novel. The current standard practice for radiology ultrasound studies (non-cardiac) currently do NOT have sonographer reporting without radiologist sign off.

Such extended scope of practice requires establishing new national specialised clinical training, substantially more than the experience gained within 12 months post qualification, noting the mention of 'reporting sonographers' being at least 12 months post qualification. Seniority in itself also does not infer technical skill. In order to interpret echocardiograms independently, clinical knowledge needed would likely cover a wide scope of clinical cardiology topics close to that of a final year cardiology registrar, on top of all the nuances of echocardiography, equivalent of a 2-year post-FRACP imaging fellowship.

I draw attention to the abstract referred to within the document that raises some interesting ideas, but does not provide enough evidence to make robust conclusions; especially which would result in a significant deviation from accepted safe clinical practice both here, Australia, and internationally. The number of senior sonographers and number of echocardiograms reported by a 'senior' sonographer is not provided, there is no statistical analysis nor comparison against best clinical practice. This abstract submission was not peer-reviewed, is retrospective, not blinded and is without longer term follow up, when likely issues related to current mild abnormalities would become more evident. Therefore conclusions regarding patient safety cannot be clearly made.

At present there is no formal echocardiogram accreditation body specific to NZ and we have an echocardiography course which is still in its infancy and is primarily focussed on the technical aspects of echocardiography, with limited clinical input and education on appropriate patient management. There is no NZ based approach or clinically robust evidenced based way, of 'credentialing' or 'supervising' 'independent' sonographer reporting practice. Local / internal endorsing and credentialing practices are not supported by the IMWG of CSANZ due to the clinical risk and internal pressures.

Sonographer shortage has been an incessant problem for a number of years with extremely high staff turnover and heavy reliance of overseas recruitment. The resultant recruitment has created a workforce with variable levels of skill, expertise and training, undermining the effectiveness of any quality assurance (QA) processes. Moreover, increasing the workload of the sonographers per scan would reduce their overall output, further exacerbating the workforce shortage.

The financial incentive of being a "reporting sonographer" may push sonographers towards reporting even when they may not be entirely comfortable. Equally, pay inequality may result from some districts offering their sonographers the reporting salary, making them "more equal than others".

Historically, the anecdotal experience of sonographers who have signed off their preliminary report without cardiologist input have reported the tremendous stress of such process, with isolation and drifting of clinical interpretation away from the norm, despite regular QA and weekly sessions. Systematic errors arose after prolonged period of scanning and issuing reports without cardiologist

feedback. The collaborative team approach ensures that the whole echocardiography lab is uniform in the interpretation of often complex data. An average sonographer produces 500-1000 studies per year, while an average cardiologist reports around 2000 studies per year. The mixing and matching of scans and reports within the lab ensure that everyone looks at everyone's work, providing constant feedback and maintaining a high level and quality service.

The drift and isolation can often be observed in places currently without adequate cardiologist input, such that patients taken over from these centres to tertiary centres such as Te Toka Tumai Auckland often have their echocardiograms "re-reported" or images "re-acquired".

Quality is not always costly, but often cost-saving.

3. Contribution to Te Tiriti o Waitangi – are we harming Maori?

In the New Zealand setting, "reporting sonographer" denotes the unfortunate situation where some districts do not have allocated imaging cardiologist resource to report sonographers' preliminary reports. "Sonographer reporting" was voluntarily or involuntarily "implemented" upon these sonographers.

The inequity of cardiologist resource between urban and rural centres is something that CSANZ is acutely aware of and actively campaigns against. **The CSANZ strongly defends the rights of patients in receiving equitable cardiology care, regardless of geographical location.**

The statement that sonographer reporting reducing reporting backlog would improve Maori health outcome is misleading. The solution should have been the provision of adequate imaging cardiologist resource to clear the backlog. Instead, the current proposal eliminates cardiologist reporting altogether. This inevitably harms patients with the most health needs, disproportionately Maori and Pacific.

The action of Te Toka Tumai Auckland, being one of five tertiary centres providing cardiology care, gravely impacts on the regions. The acceptance of eliminating cardiologist reporting from echocardiography in Auckland would be mistakenly seen as an acceptable model of care for the regions; further exacerbating the current inequities in the system, thus putting vulnerable populations in the regions at even further risk.

Currently, in districts where there is sonographer reporting, there is clear dis-incentive in employing imaging cardiologists. Arguably, imaging cardiologists are useful from the service point of view not just for echocardiogram reporting, but also general cardiology and other imaging modalities. A healthy echo lab requires the clear collaboration between the imaging cardiologists and sonography team. Currently, many rural centres do not have cardiologists, not to mention imaging cardiologists, exacerbating postcode lottery. The employment of 'sonographer reporters' in Te Toka Tumai Auckland may worsen this issue due to an unequal financial incentive in that region.

4. How effective is this new model of care in saving money?

Throughout the document, it was emphasised that sonographer reporting is limited to seemingly "normal" studies.

If the model of care involves sonographers signing off seemingly normal studies, one would argue that the efficiency gain is minimal. Normal studies take the shortest time to sign off. While it differs between regions, the majority of echocardiogram studies are not completely normal.

Meaningful efficiency gain only occurs if the “majority of echo reports” are signed off by sonographers, eliminating the cardiologists from almost all reports.

Furthermore, the grey area between normal vs. abnormal is common and arguably contains a disproportionate amount of medico-legal risks.

The Health and Disability Commissioner would not view favourably towards missing pathology in these reportedly “normal” echocardiograms by the sonographer. The system is further inherently flawed by internal bias as the same sonographer picks out and flags the studies that require checking by the cardiologists.

5. Conclusions

CSANZ has concern that this proposal is mainly resource driven, and essentially proposes the elimination of cardiologist input in echocardiogram reporting; without an adequate formal clinical training program for reporting sonographers nor implementation of a formal external credentialing and supervision pathway.

While Te Toka Tumai Auckland may afford to go against national and international guidelines and determine that their echocardiograms do not need cardiologist sign off, such practice, should it become widespread, would place vulnerable populations in the regions at risk, disproportionately harming Maori and Pacific people. This fails to uphold the principles of Te Tiriti o Waitangi.

Until the time when a national specialised cardiac sonographer clinical training programme is implemented with a substantial piece of work in credentialing, maintenance of competence and quality and assurance, we feel that we cannot endorse the proposal.

Yours Faithfully



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Chair

On behalf of the CSANZ IMWG

References

1 Gardin et al. Recommendations for a Standardized Report for Adult Transthoracic Echocardiography: A Report from the American Society of Echocardiography’s Nomenclature and Standards Committee and Task Force for a Standardized Echocardiography Report. JASE. March 2002, (15)3, 275-290.

2 Galderisi et al. Standardization of adult transthoracic echocardiography reporting in agreement with recent chamber quantification, diastolic function, and heart valve disease recommendations: an
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3 Johnson et al. New Zealand minimum dataset for a standard transthoracic echocardiogram. NZMJ 29 November 2019, Vol 132 No 1506, 81-89.