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National Health committee  
Ministry of Health  
Wellington  
By email: [nhc\\_consultation@nhc.govt.nz](mailto:nhc_consultation@nhc.govt.nz)

Tēnā koutou

### **Recommendations to improve the model of care for severe aortic stenosis**

The New Zealand Nurses Organisation (NZNO) welcomes the opportunity to briefly comment on the above consultation, which incorporates learnings from the suite of severe aortic stenosis (AS) assessment documents undertaken as part of the National Health Committee's cardiovascular programme. These include an overview assessment of AS and assessment of two high cost interventions for aortic valve replacement - Trans-Catheter Aortic Valve Implantation (TAVI) and Sutureless Aortic Valve Replacement (AVR).

NZNO has consulted with a small number of members with relevant experience and expertise in this area, including members of our College of Critical Care Nurses and Perioperative Nurses College, and members who belong to the Australian and New Zealand Cardiac Society. As NZNO members did not attend the workshops, feedback received was mainly in the form of individual responses to the document rather than the result of discussion and consensus. Notwithstanding that, the general response was that the revised model of care is a positive way forward in the management of AS which is in keeping with international best practice, and, to some extent, reflects current practice in Aotearoa New Zealand at the three centres which provide surgery, TAVI and sutureless AVR.

NZNO supports the revised model of care and the process for identifying the small number of high acuity patients who would benefit most from either of these procedures. We particularly welcome the multidisciplinary team approach eg with regard to standardised national patient selection criteria for severe AS interventions; we believe comprehensive holistic assessment can help mitigate the considerable inequity associated with the prevalence of, and access to assessment and treatment for cardiovascular conditions in Aotearoa New Zealand. There is a significant risk of compounding health disparities within older populations that are the legacy of early disadvantage, structural discrimination and inequality. Eg Māori and Pacific peoples have a higher incidence of rheumatic fever, and shorter lifespans, so are disproportionately disadvantaged when, as in this case, treatment options vary according to life expectancy.

The population health context must inform the revised model of care which should include/reference specific actions to reduce health demand and improve health equity in relation to acute AS. We strongly recommend that the model of care is developed within a framework of health equity such as the Public Health Association's *Te Ture Whakaruruhau – Code Of Ethical Principles For Public Health In Aotearoa New Zealand*.

We also welcome the introduction of a frailty score and geriatrician input into cognitive assessments and suggest that this is an area where Clinical Nurse Specialists (CNS) and Nurse Practitioners (NP) could make a significant difference in assisting geriatrician services to avoid the additional burden this will place on services. Nurses could also be part of the initial follow up, and subsequently at one and two years.

Once again thank you for this opportunity to contribute.

Nākū noa, nā



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#### NEW ZEALAND NURSES ORGANISATION (NZNO)

NZNO is the leading professional nursing association and union for nurses in Aotearoa New Zealand. NZNO represents over 46,000 nurses, midwives, students, kaimahi hauora and health workers on professional and employment related matters. NZNO is affiliated to the International Council of Nurses and the New Zealand Council of Trade Unions.

NZNO promotes and advocates for professional excellence in nursing by providing leadership, research and education to inspire and progress the profession of nursing. NZNO represents members on employment and industrial matters and negotiates collective employment agreements.

NZNO embraces Te Tiriti o Waitangi and contributes to the improvement of the health status and outcomes of all peoples of Aotearoa New Zealand through influencing health, employment and social policy development enabling quality nursing care provision. NZNO's vision is *Freed to care, Proud to nurse*.

A revised model of care for severe aortic stenosis is proposed for implementation including:

Standardised national patient selection criteria for severe aortic stenosis interventions where:

Conventional surgical aortic valve replacement is the gold standard of care for severe symptomatic aortic stenosis for patients with moderate or low risk, ie patients with acceptable surgical risk (STS score less than 8), and less than two of the following – significant physical frailty,

cognitive impairment, or multiple significant comorbidities and no issues related to technical inoperability.

Only patients with an STS score greater than 8 or those patients identified as technically inoperable (eg with calcific aorta or hostile chest) for surgical aortic valve replacement can be prioritised to receive TAVI. Patients with two or more of the following – significant physical frailty, cognitive impairment or multiple significant comorbidities will not be prioritised for TAVI.

Sutureless valve replacement is only for high-risk patients based on clinician preference and providing the sutureless valve is a similar price to conventional bioprosthetic valves.

Patients should receive medical management/palliative care if their life expectancy is less than two years following aortic valve replacement. In the absence of a significant improvement in patient survival (with an acceptable quality of life); medical management should be the preferred option if patients cannot expect to benefit from an improved quality of life following valve replacement. This is broadly consistent with the current New Zealand policy setting for TAVI, where candidates should have a life expectancy greater than two years.

Decision-making should be informed by diagnostic investigations and the following risk management tools to ensure patients receive the most appropriate intervention:

Operative mortality risk predicted by STS-PROM (the preferred tool based on current evidence) or EuroSCORE II; not EuroSCORE I.

Frailty score which measures physical frailty and cognitive function. Patients with high frailty indices are unlikely to survive for reasons other than their primary cardiac condition and this can make invasive and expensive interventions like aortic valve replacement clinically futile and cost-ineffective.

Quality of life measurement from a patient perspective, using a tool where values can be converted to utilities such as EQ5D. For meaningful results data should be captured at referral and year 1 and 2 follow-ups. Quality of life data provides invaluable feedback to clinicians looking to avoid unnecessary and harmful intervention. Anticipated life expectancy of one year or less, or no expectation of improved quality of life, are considered contraindications for aortic valve replacement.

Patient selection to be undertaken by a multidisciplinary team, including appropriate specialist interventional cardiologists, cardiac surgeons, geriatricians and other clinicians. Existing joint cardiac surgery/cardiology conferences to be utilised where possible.

Mandatory entry of clinical and business data into a national registry for interventions for severe aortic stenosis. Fields to include:

Patient information based on and linked to the national NHI system.

Surgical risk score (STS-PROM).

Frailty score which measures physical frailty and cognitive function.

Quality of life measures from the patient's perspective using EQ5D, or similar, captured at referral and one and two years post-intervention.

Technical reasons for inoperability ie calcific aorta, hostile chest.

Multidisciplinary team treatment decision.

Treatment undertaken, ie surgical aortic valve replacement, balloon valvuloplasty, transcatheter aortic valve replacement, sutureless aortic valve replacement, medical management or palliative care.

Valve and delivery system device information to enable tracking.

Valve Academic Research Consortium-2 (VARC-2) endpoints ie device success, stroke, paravalvular leak, major vascular complications etc.

Business data including resource utilisation to supplement data collected by DHB patient management and clinical systems to support management of the national AVR waiting list, national AS targets, time to access diagnostics and treatment, and real time budget management.

TAVI will be provided through three cardiac centres: Auckland (for the northern region), Waikato (for the remainder of the North Island) and Canterbury (for the South Island).

The number of TAVI procedures will equate to a level of 10.7 per 100,000 population 65 years or older across New Zealand, a total of at least 70 procedures.

TAVI are currently provided at varying rates across New Zealand. For those DHBs with greater than 10.7 per 100,000, close monitoring is required to ensure the referrals meet the patient criteria and patients are prioritised appropriately for TAVI.

The intervention rate is subject to future revision consequent to significant new evidence indicating a material change in the relative value of TAVI within the model of care.

The multidisciplinary team for each cardiac centre is expected to manage the schedule and workload to ensure that the appropriate number of surgical aortic valve replacements, TAVI and sutureless valve replacements are delivered for each DHB. The volume of patients receiving these interventions each year is expected to align with the national intervention rate targets and elective surgical targets. Patients will need to be prioritised to meet this requirement.