Inquiry into the Regulatory Standards for the Approval of Medical Devices

Submission to the Senate Community Affairs Committee – July 2011

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1.0 Background

Medtronic welcomes the opportunity to contribute to the Senate Community Affairs Committee Inquiry into the Regulatory Standards for the Approval of Medical Devices. In doing so we note that this Inquiry is to focus on joint replacements. While Medtronic has a very wide range of implantable products, our interest in joint replacements is limited to spinal implants. However, given the wide reach of the TOR, we feel it imperative to bring to the Committee's notice the potential for recommendations arising from your deliberations to impact the wider medical devices environment. Thus, we will focus this submission on the wider environment. Should the Committee choose to invite Medtronic to appear, then we would be pleased to do so.

Whilst there are multiple factors contributing to the decades of improved life expectancy for Australians over the past century, access to innovative medical technology is clearly amongst those factors.

Medtronic is a member of the Medical Technology Association of Australia (MTAA). We have noted and support the submission by MTAA and we refer to it in this submission. Rather than repeating points made in the MTAA submission, Medtronic seeks to provide illustrative examples of key points, notably regarding the potential impact of increasing regulatory requirements, and, the continuing need for implementation of recommendations from the HTA Review.

2.0 Medtronic Profile

As an active participant in the Australasian medical device environment for more than 37 years and internationally for over 60 years, Medtronic has witnessed considerable change in the evaluation processes for new medical technology.

Medtronic is well-positioned to comment on the impact of existing processes and provide recommendations to improve process efficiency, reduce duplication and unnecessary complexity, as well as decrease regulatory costs that can combine to impede medical innovation in Australia.

Company Description:
Medtronic is the global leader in medical technology- alleviating pain, restoring health and extending life for people with chronic conditions around the world. Medtronic develops and manufactures a wide range of products and therapies with emphasis on providing a complete continuum of care to diagnose, prevent and monitor chronic conditions. Each year, Medtronic therapies help more than seven million people**.**

Founded:
29 April, 1949 in Minneapolis, Minnesota, USA, by Earl E. Bakken and Palmer J. Hermundslie.

Global Presence:
Medtronic conducts business in more than 120 countries, with the World Headquarters based in Minneapolis, Minnesota USA. Medtronic Australasia is headquartered in Sydney.

Workforce:
Medtronic employs more than 38,000 people worldwide and more than 400 in Australia.

3.0 Executive Summary

Medical devices entering the Australian market are assessed by the Therapeutic Goods Administration (TGA) under a risk management model, harmonised with other Global Harmonisation Task Force (GHTF) countries – USA, Canada, Japan and Europe. The GHTF model is being adopted in Asia, South America and parts of North Africa. Careful consideration would suggest there is a compelling case for maintaining regulatory consistency, in the interests of patient safety and access to emerging innovative technologies.

The risk management models adopted globally for assessment of medical devices acknowledge the differences between pharmaceuticals and devices, and the impractical nature of pharmaceutical type trials in the devices environment.

The need for the TGA to continuously review and improve its assessment processes is understood and supported. In particular, post-market vigilance and incident reporting are fundamental to ensuring patient safety and optimal device performance.

The HTA Review has been a valuable exercise and it would be counter productive to revisit this process. However, it is not clear to us that in the implementation there have been significant improvements in timeliness and reduction in the regulatory cost of bringing medical technology to the Australian public. Some of the implemented recommendations require further work, including the MSAC process.

4.0 Addressing the TOR

For simplicity, we have followed the pattern established in the MTAA submission of grouping the subjects addressed by the TOR as follows:

a. Regulation of higher risk medical devices – paragraphs (a), (d), (f) and (g).
b. Reimbursement of implantable medical devices listed on the Prostheses List – paragraphs (b) and (c)
c. Safety standards and approval of remanufactured medical devices – paragraph (e)
d. Effectiveness of the implemented recommendations of the HTA Review – paragraph (h).

5.0 Regulation of Higher Risk Medical Devices

The MTAA submission to your Committee has clearly explained why it is generally not feasible to regulate and manage medicines and medical devices under the same model.

In terms of Health Technology Assessment (HTA) of all kinds, the levels of evidence available for pharmaceuticals at launch may feasibly be higher due to factors such as: long patent lifetimes, long product lifecycles, size of markets and isolatable study factors. Due to much longer development cycles and corresponding patent protection periods pharmaceuticals companies are able to spend many years developing their evidence base before products are brought to market.

Medical devices on the other hand are characterised by iterative and incremental product development. Often surgical procedures are required in order to use the device, creating in many cases insurmountable problems for blinding and control in any ethical fashion.

The iterative nature of product development for devices means that it can often be difficult to draw the line between new products and existing products with design enhancements. Such enhancements can be made to improve everything from patient outcomes and quality of life, through to improved handling for surgeons, reduced procedure times, less invasive procedures, lower cost more eco-friendly materials, packaging and many other factors.

At the same time the pace of technical development, the same that drives information and communication technology change, enables breakthroughs in medical technology to be brought rapidly to market and also for these technologies to be made rapidly redundant. These technologies often address

small and niche markets which do not generate the volumes or revenue required to justify expenditure in costly long term trials. Importantly though, this does not mean that these devices cannot be brought to market at acceptably low risk if proper design testing is performed and if the devices are manufactured and distributed under appropriately documented and audited quality systems.

If every iteration of device needed large-scale studies and long and expensive approval processes prior to market entry, then Australian patients would experience a dramatic technology freeze.

Having said this, the demand for improved evidence is valid and growing. Industry is rapidly changing to adapt to this demand and is committed to increasing the levels of evidence available. Despite this, for most medical devices there will never be the same extent of high-level evidence available as is the case for pharmaceuticals. Attempting to mimic systems developed for assessment of pharmaceuticals will fail and stifle innovation, restricting access to breakthrough technologies.

Medtronic recognises that the adequacy of the TGA assessment of medical devices prior to entering the Australian market has been questioned, including by this Inquiry. We understand that the TGA needs to address these concerns. However, it is important to note that many of these concerns do not appear to have a basis in evidence of any systemic problems with, or failure of, current pre-market regulatory processes, either in Australia or internationally in other GHTF risk based regulatory systems.

The TGA already assesses products based by risk categories, with the highest risk category devices requiring the highest level of documentation and review. The TGA does, in many cases, recognise the regulatory equity sponsors have invested in having these products reviewed in some other jurisdictions, most notably the EU. It is important to note however that a successful application in Europe does not automatically lead to an inclusion on the ARTG in Australia. The TGA can, and regularly does, question overseas assessments if it is not satisfied with the evidence supplied. Accordingly, TGA can, and does, reject applications if sponsors cannot address concerns raised.

Australians enjoy an environment where the level of regulation of medical technologies, particularly those at the highest risk end of the scale, is equal to the best systems in the world and arguably better than most.

The evidence available from fellow Global Harmonisation Task Force (GHTF) members with similar risk based systems shows that these systems work. Furthermore, these studies show over-regulation not only impacts negatively the time to market for medical devices and the costs to industry, but more importantly

the ability of patients to access lifesaving and life enhancing medical technology. In jurisdictions where over-regulation has occurred, such as Japan, consumers have been forced to look offshore for medical treatment.

In a report prepared by Battelle Memorial Institute for the US Advamed industry association regarding the US FDA environment entitled "510(k) Premarket Notification Evaluation", it was shown that where the less rigorous 510(k) process was compared with the significantly more rigorous PMA process there was no demonstrable correlation between higher level review and reduced numbers of product recalls – in fact it showed the opposite. Between 2005 and 2010, 0.85% of the total of 2,825 devices approved under the US FDA PMA process was recalled as compared to 0.16% of the total of 46,690 devices approved under the 510(k) process. This data does not appear to support a correlation between increased pre market assessment and improved patient safety. This is supported by additional data published in a report commissioned by the US Medical Devices Manufacturers' Association (MDMA) Industry body entitled "FDA Impact on US Medical Technology Innovation" which shows that these rare product recall events derive from issues that would be most effectively detected through strong post-market surveillance and vigilance processes rather than by more expansive pre-market data requirements. This report also outlines how over-regulation can negatively impact patients, innovation and industry, particularly domestic industry.

TGA has previously expressed views that the regulatory focus should be shifting away from increased pre-market assessment (where products had already received regulatory reviews in other jurisdictions) and moving toward focusing more resources on post market vigilance to better assess and respond to trends in product performance. We believe that this model is more appropriate to the medical device market as it allows regulators to identify issues associated with batch manufacturing faults and long term design issues which are unlikely to be addressed by increased pre market review. Indeed most of the few examples that current stakeholders raise of specific product failures tend to support a case for strengthened post-market surveillance rather than increased pre-market assessment.

TGA is currently considering proposals some of which we believe, particularly in the area of pre-market assessment for Class III and AIMD products, are counter to this view and which if implemented would result in significant increases in the costs of medical devices due to increased regulatory costs. Even more importantly we believe it has the potential to unnecessarily delay access to new medical technologies by potentially years and prevent some products from reaching the Australian market altogether.

Medtronic estimates that the cost in fees alone to Medtronic just to transition existing products to the proposed system referred to above would be $12 million and these costs would have to be passed on to the Australian healthcare system. In addition, on-going registration approval costs would potentially increase by more than 1000% and timeframes for approvals could triple from 4-6 months to 18 months. This assumes TGA has or can hire the extra capacity for the vastly increased workload; if they don't and can't (which would be our assessment) then this could be much longer, conceivably 2-3 years or more. For larger companies with product categories that have high volumes of sales this is a large imposition which will result in higher costs that need to be managed or passed on. However, for smaller companies and for lower volume product categories, this may make the Australian environment unsustainable.

6.0 Reimbursement of Implantable Medical Devices

The subject of reimbursement for medical devices has been extremely well covered by the HTA review and the views of multiple stakeholders including Medtronic and the MTAA are publicly available.

In general the reimbursement recommendations of the HTA Review are progressing well and some positive changes have been made. But, one very important recommendation that is progressing much too slowly is the development of review and appeal mechanisms for both the Prostheses List and for MSAC. At this stage there is no mechanism for internal appeal and review of decisions made by these bodies. It is imperative that this is addressed as a matter of urgency.

Another area that needs to be addressed is the lack of sufficiently clear and detailed guidelines on the clinical evidence requirements for listing products on the Prostheses List. This lack of guidelines has resulted, in some cases, in what appears to be an inconsistent assessment of product applications; this greatly increases the uncertainty for companies. Company requests for higher benefits for certain products due to clinical superiority are not currently being assessed, as the criteria for superior clinical performances are still being developed.

Medtronic commends MSAC on the work it has done to develop a new framework for the MSAC assessment processes. However, we believe MSAC is experiencing significant teething problems with the new processes, resulting in a great deal of uncertainly for applicants who have applications in progress. This includes significant examples of "shifting goalposts", undocumented processes, partially implemented processes, poor communication of changes and processes, and expectations and lack of transparency. There are further

improvements to be made here if Australia is to deliver internationally recognised good HTA practice.

7.0 Safety Standards and Approval of Remanufactured/Reprocessed Medical Devices

Medtronic notes that TGA is currently reviewing an application for a company to supply and sell re-processed/re-manufactured medical devices from 3rd party manufacturers. These are devices that were designed for and labelled as single use by the original manufacturer. TGA has taken the only position on this open to them that each application must be assessed under the same standards as applied to original manufacturers. However, it is our contention that evaluation systems in place may not be constructed to adequately assess a product which is to be handled and used in a manner different from that for which it was originally designed.

Based on our experience, Medtronic's concerns fall into three groups:

1) ***Safety.*** Results from Medtronic testing of US market sourced reprocessed/remanufactured Medtronic Octopus® tissue stabilisation product, used for beating heart surgery, in the US market, showed that all of the 14 reprocessed units tested were contaminated with unknown material, showed DNA and protein positive bio-contamination and exhibited physical defects. We believe there are still serious questions as to whether a device designed for single use can be effectively decontaminated and re-used whilst maintaining the same safety profile as the original device. Further it is our contention that any original data relied upon to support a single use application cannot as a general principle be accurately and reliably extrapolated to multiple use.

2) ***Adverse Event Reporting.*** Medical device manufacturers are required to keep records of, and report to regulatory authorities, all adverse events and complaints regarding their products. Medtronic has significant concerns about the ability of healthcare practitioners, consumers and companies to effectively identify original products from those that are likely to still bear the original manufacturers logos and model numbers but which have been reprocessed whether or not additional labelling is applied. Accurate recording of complaints, failures and adverse events is essential as a part of post market surveillance and internal quality systems to ensure that the trending and reporting processes are not contaminated and skewed by inclusion of reprocessed devices. Similarly, where the original manufacturer identifies a quality issue with the original product and issues recalls and field actions to customers and consumers, it may not be possible to identify where reprocessed products have been supplied and thus to notify users. This potentially raises issues of concern with respect to ongoing patient safety.

3) ***Informed Consent.*** Medtronic believes consumers would wish to know that products which were designed for single use and that have been reprocessed by a 3rd party, are to be used in their surgery and to then give consent for this use. Similarly, as surgeons often will not see the outer packing of products before it is opened for use in surgery, Medtronic believes surgeons should be notified that products which they are using in a surgical procedure have been reprocessed/remanufactured and give their specific approval to use such a product.

8.0 Effectiveness of the Implemented Recommendations of the HTA Review

In a February 2010 joint press release Minister Roxon and (then) Minister Tanner announced "streamlined approvals" for the assessment of medical technologies and procedures, which "means patients will have faster access to the latest safe and effective treatments, products and technology, and industry will have reduced costs in getting their products to market". This announcement, forming a part of the government's response to the completion of the HTA Review commissioned in 2009, was welcome news.

Other reviews in the immediately preceding three years had pointed to the need for more responsive and affordable arrangements to bring safe and effective medical technologies to patients in a timely manner. These included the Banks Report, which looked at delivering better regulation, the Productivity Commission's Study "Impacts of Advances in Medical Technology in Australia", and the HTA Review. Drawing attention to increasing regulatory burdens, Banks had noted:

"In many areas, however, regulation has gone beyond what is sensible … the Taskforce found numerous instances where regulations are excessive and/or poorly designed or administered, and are thus imposing unnecessary compliance burdens on business."

In looking at the implementation of recommendations from the HTA Review thus far, it is difficult to find significant examples where timeliness and regulatory cost-containment advantages for industry, or accelerated access for consumers have been delivered.

We have observed slowing TGA timeframes and we are seeing evidence that times to approval from submission are steadily increasing. We have had reports that TGA is extending target timeframes. There are before government proposals for TGA changes which could massively increase the regulatory burden and have the potential to delay access to some medical technologies by years. Paragraph 5 above has referred to the prospective dramatic cost increases.

Proposed improvements to the MSAC evaluation processes were greatly anticipated and still hold strong potential. However, 18 months after the recommendations from the HTA Review were released; aspects of transparency, consistency and consultation have not improved and in some cases appear to be worse at least during this transition period. By way of example:

- Reduced transparency - currently no published guidelines (previously, two sets of comprehensive guidelines (application and economic) were available on the MSAC website).
- Minimal transparency regarding timelines to allow longer term strategic planning (MSAC scheduled cut-off dates for PASC meetings only current to 31 August).
- Minimal transparency regarding timelines, expectations and requirements for each stage of the revised process.
- Absence of an appeal process.
- Inconsistent and incomplete insight into the MSAC process is obtained via first hand experience or ad hoc communication with MSAC staff.
- Increasing complexity of MSAC requirements along with reduced transparency and guidance and the potential to raise the evidence requirements beyond what is achievable for many medical devices, potentially raising the costs of developing and supporting submissions whilst at the same time reducing the likelihood of success.

Medtronic suggests that the best way to reduce the regulatory burden is to reduce the often adversarial nature of the relationship, promote open communication, increase opportunities for consultation and share relevant data to ensure that evaluation is appropriate, and decisions are accurate and relevant.

9.0 Summary

This submission, while not directed towards joint replacements, seeks to bring to the Committee's notice, the impact that poorly constructed regulatory requirements could have on the medical device industry in Australia. Medical device regulatory systems around the world strive to ensure a balance between acceptable patient safety standards and timely access to innovative technologies which can save and transform lives. If Australia imposes a regulatory barrier which is significantly different to those required in other major markets such as Europe and the United States, then there is significant risk that access to medical technology will be reduced. This is a realistic concern considering that Australia represents just over two percent of the world medical devices market. Increasing the regulatory burden above that required in major markets could not only have a flow-on effect of stifling innovation, but also increase costs of devices to patients, both through the need for manufacturers to recover the costs of additional regulation, and the reduced competition in the marketplace likely to result from

the additional cost burden. Paragraph 5 of this submission has indicated the additional costs Medtronic faces with prospective regulatory changes.