

## CONFORMITY ASSESSMENT BRANCH (CAB)

Providing a means of communication on issues affecting the quality, safety and efficacy of materials, equipment, instruments, apparatus, implants and appliances used in health care.

Please circulate to all interested staff

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- 2.
- 3.
- 4.



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## CRISIS MANAGEMENT PLANS FOR INDUSTRY AND REGULATORS

In recent months, two companies which supply over-the-counter medicines to the Australian market have conducted national consumer level recalls of products as a result of criminal tampering and extortion threats. These incidents have highlighted the importance of companies and regulators having in place up-to-date crisis management protocols to address such situations.

A Taskforce comprising representatives from the TGA, therapeutic goods industry associations, the Consumers' Health Forum, the police and State/Territory health authorities has been established to facilitate a systematic approach to these matters. The Taskforce has met 3-4 times since its inception in early June 2000.

There has been agreement on a 'whole of industry' approach to crisis management based on world best practice. The Australian Self-Medication Industry Association (formerly known as the Proprietary Medicines Association of Australia) has agreed to review and refine their existing protocols based on international best practice and to provide model Crisis Management Guidelines for adoption by the therapeutic goods industry as a whole.

A new section referring to Crisis Management will be inserted in the *Uniform Recall Procedure for Therapeutic Goods*

*continued from page 1*

requiring that the TGA be notified in the event of a product tampering threat. As part of the new Crisis Management Plan, the TGA Recalls Co-ordinator will convene a Crisis Reference Group (CRG) comprising representatives of the company, police and relevant health authorities. The CRG will determine an action plan to deal with the crisis - which may or may not involve recall of the product.

The TGA is developing a Crisis Management Plan that meets international best practice by reviewing plans used by other health regulators.

State and Territory health authorities without mechanisms already in place, are establishing mechanisms for the rapid dissemination of information to hospitals in their jurisdictions.



## NEW RECALLS POWERS FOR PRODUCT TAMPERING

The *Therapeutic Goods Act 1989* has been amended to strengthen the TGA recall powers in cases of product tampering. The legislation has been passed through both Houses of Parliament and is in operation.

The Act has been amended to:

- require mandatory reporting to the TGA by sponsors as soon as they become aware of cases of product tampering or implied product tampering;
- give the TGA mandatory recall powers, under specified circumstances, in cases where sponsors refused to recall tampered products; and
- make it an offence to supply or sell goods subject to recall.



## MEDICAL DEVICES ELECTRONIC APPLICATION LODGEMENT (DEAL) - PILOT LODGEMENT SYSTEM RELEASED 31 JULY 2000

In parallel with the development of the new medical devices regulatory requirements for medical devices in Australia, the TGA in consultation with industry has developed an electronic lodgement process for medical device applications proposed. The electronic process was released as a pilot program on 31 July 2000.

The medical device electronic application lodgement (DEAL) system provides an electronic online environment for the lodgement or variation for entry of a medical device on the Australian Register of Therapeutic Goods (ARTG). It enables sponsors of medical devices to lodge applications from a

remote Internet-capable PC electronically to the TGA through a secure transmission system.

The DEAL lodgement process moves the TGA processes and procedures for medical devices toward co-regulation and self assessment by the applicant. The applicant makes a declaration as to the truth and accuracy of information contained in the application. Subject to their risk classification under the proposed scheme, medical devices will be processed differently:

- Class I devices – considered to be low risk. These will be automatically entered on the register under DEAL;
- Class I sterile / measuring devices – considered to be low to medium risk. These will be entered on the Register following verification of the manufacturer's quality system certification but will be subject to a random pre-entry review;
- Class IIa and IIb devices – considered to be medium risk. These will be entered on the Register following verification of the manufacturer's quality system certification. The Class II medical devices will also be the subject to random pre-entry review; and
- Class III devices and AIMD devices – considered to be high risk. These will be reviewed prior to entry on to the register.

Documentation supporting the application will not be required to be submitted at the time of the application. However, the supporting documentation may be requested as part of the random pre entry review of 20% of all applications, given the applicant has declared their access to the necessary information as part of their application.

The entry of a medical device on the ARTG will have two distinct stages subject to the classification of the device.

- a Class I application can be made directly against a manufacturer's self declaration of conformity
- Sterile/measuring Class I devices and class IIa and IIb devices will require an initial application to register a manufacturer's quality system certification. The initial one month pilot will be based on CE certification and will not address 'non' CE certified manufacturers.

Information collected during the registration of the quality system certificate is used to fill relevant fields in the device application and hence forms part of the application validation and approval. Confidence in the self assessment process will be measured by TGA randomly selecting 20% of Class I, IIa and IIb applications for review.

Details to be entered in the medical device application will vary for the different classes of devices and the conformity assessment route used by the manufacturer.

The pilot DEAL application allows an applicant to

- lodge a medical device application;
- lodge a manufacturer quality system certificate;

- *manage applications* – create, view, recall, edit, archive, print, validate and lodge applications into the TGA;
- *track the progress of applications in TGA.*

The pilot development has involved extensive consultation with industry and health professional stakeholders, including the Medical Industry Association of Australia (MIAA), Australian Dental Industry Association (ADIA) and the Association of Regulatory and Clinical Scientists (ARCS) Forum. The successful implementation of the program will require input, co-operation and support from industry.

For further information and contributions concerning the device application lodgement pilot please contact Mike Johnston on (02)6232 8403 or Email: michael.johnston@health.gov.au.

## NEW MEDICAL DEVICE LEGISLATION UPDATE – INFORMATION SEMINARS

During June and July 2000 information seminars for industry on the new medical device regulatory system and the new Device Electronic Application Lodgement (DEAL) system were conducted in Sydney, Melbourne, Adelaide and Perth. There was an excellent response to the seminars in all locations. Further seminars were conducted during September 2000 in Sydney and Melbourne on the specific requirements for Class 1 medical devices and the DEAL system.

The TGA is planning to conduct the next round of information seminars for Industry in February/March 2001. It is anticipated that an early draft of the Regulations, which will contain the detail of the new requirements, will be available for discussion by this date. The information seminars on the new legislation will be held in most capital cities.

Information on the dates, times and locations of the seminars will be advised on the TGA website at <http://www.health.gov.au/tga/devices/devices.htm> or via the Conformity Assessment Branch information line on 1800 020 653.

## UPDATE ON THERAPEUTIC GOODS ORDERS (TGO'S)

Following on from the June 2000 Therapeutic Goods Committee meeting, the TGA proposes to -

- Adopt a new Therapeutic Goods Order for Blood Bags that references the Australian Standards AS 3787.1-1997 *General requirements for single-use, sterile, plasticized polyvinyl chloride (PVC) packs for human blood Part 1: Single blood packs* and AS 3787.2-1997 *General*

*requirements for single-use, sterile, plasticized polyvinyl chloride (PVC) packs for human blood Part 2: Multiple blood pack systems.*

- Adopt a new Therapeutic Goods Order (TGO) for dental materials that includes a reference to the International Standards ISO 9917:1991(E) *Dental water-based cements* and ISO 9917-2:1998(E) *Dental water-based cements – Part 2:Light-activated cement* and a paragraph on 'Markings'.
- Revise TGO 37 *General requirements for labels for therapeutic devices*. The Committee endorsed the proposal to bring the labelling requirements for medical devices into line with the labelling requirements recommended by the Medical Devices Global Harmonisation Task Force.

## APPOINTMENT OF NEW DIRECTOR FOR THE CONFORMITY ASSESSMENT BRANCH

Ms Rita Maclachlan has been appointed Director of the Conformity Assessment Branch, Therapeutic Goods Administration. Rita has been acting in the position for the last 12 months and has made a major contribution to the direction of the Branch handling some challenging policy and operational issues with distinction.

Rita has extensive experience in a number of aspects of therapeutic goods regulation, in both medical devices and medicinal products. She first worked with the National Biological Standards Laboratory in vaccine testing and standards development. This was followed by positions with the Adverse Drug Reaction Scheme, the National Drug Information Service, the Australian Register of Therapeutic Goods and, since 1991, the medical devices program.

During her career in the medical devices program, Rita has been the Manager of Device Listings and Pre-market Registrable Devices program, Executive Secretary of the Therapeutic Devices Evaluation Committee, Acting Head of the Postmarket program, and Head of the Policy & International Liaison Section with responsibility for new policy proposals/ legislation, international policy and publications.

Ms Rita Maclachlan,  
new Director,  
Conformity  
Assessment Branch





## MUTUAL RECOGNITION AGREEMENT SIGNED BETWEEN AUSTRALIA AND THE EUROPEAN FREE TRADE ASSOCIATION ON MEDICAL DEVICES & MEDICINAL PRODUCTS GMP

A significant achievement has been reached with the signing of a Mutual Recognition Agreement (MRA) on standards and conformity assessment between Australia and the European Free Trade Association (EFTA). This agreement extends the regime of the Australian and European Community Mutual Recognition Agreement (EC-MRA) to include Norway, Liechtenstein and Iceland, thereby extending the arrangements to include all the countries of the European Economic Area (EEA). As with the EC-MRA, the TGA has responsibility for the medicinal products GMP inspection and batch certification and medical devices conformity assessment.

The MRA has international treaty status and will help facilitate trade between Australia and Norway, Liechtenstein and Iceland by allowing the testing and certification of products to be carried out in the country of export rather than the country of destination.

The formal signing of the MRA took place on 29 April 1999 and came into effect on 1 July 2000.

For further information in relation to medical devices, please contact Mr Keith Smith on (02)6232 8704, facsimile on (02)6232 8785, or Email [keith.m.smith@health.gov.au](mailto:keith.m.smith@health.gov.au)

For any queries in relation to medicinal product GMP matters, please contact Mr Robert Tribe, Chief GMP Auditor on (02)6232 8632, facsimile on (02)6232 8426, or Email [robert.tribe@health.gov.au](mailto:robert.tribe@health.gov.au)

(front left to right) Dr Monica Wong (Principal Medical & Health Officer), Dr Lam Ping Yan (Deputy Director of Health), Ms Rita Maclachlan (Director, Conformity Assessment Branch) and Dr Constance Chan (Assistant Director of Health)

(back left to right) John Michalick (former A/Head, Medical Device Listing Unit), Ms Siepie Larkin (A/Head, Policy & International Liaison Section), Ms Shelley Tang (Head, Device Registration & Assessment Section) and Mr Anthony Gould (GMP Audit & Licensing Section)



## IRIS FORUM

On 30 November 2000, the TGA will be hosting a half-day consultative forum on the Incident Report Investigation Scheme at the TGA in Canberra.

While invitations have already been mailed to key stakeholder organisations, the TGA considers wide participation in the Forum to be an important component of the forthcoming review of the medical devices Incident Report Investigation Scheme (IRIS). The Forum will be designed to discuss issues relating to a review of IRIS's aims, procedures, links to related programs and organisations, physical resources, feedback mechanisms and promotion.

The Forum will be as interactive as possible via a number of short presentations from key stakeholders who have been asked to outline their expectations of IRIS, how they currently interact with IRIS and their views on how the current system could be improved. Following these presentations and the TGA's overview of IRIS, the Forum will continue as a general discussion and everyone will be encouraged to participate.

If you are interested in attending or for more information about the Forum, please contact Ms Anthea Apps on (02)6232 8683, fax (02) 6232 8687 or Email: [anthea.apps@health.gov.au](mailto:anthea.apps@health.gov.au)



## HONG KONG DELEGATION MEETING WITH TGA

A delegation from the Ministry of Health, Hong Kong, comprising the Deputy Director of Health, Assistant Director of Health and the Principal Medical & Health Officer visited the TGA in May this year. Their visit to the TGA included discussions on the role of the TGA and key regulatory issues in relation to medical devices, in particular the proposed new harmonised regulatory system for medical devices.





## GLOBAL HARMONISATION TASK FORCE (GHTF) – 8<sup>TH</sup> CONFERENCE AND GHTF CHAIR

The Global Harmonisation Task Force (GHTF) was conceived in 1992 in an effort to respond to the growing need for international harmonisation in the regulation of medical devices.

The GHTF comprises five founding members (Canada, USA, European Union, Australia and Japan) and the Chair rotates among these members. Canada's Therapeutic Products Programme is the current GHTF Chair and will host the 8<sup>th</sup> GHTF Conference in Ottawa scheduled for 18–22 September 2000.

The GHTF provides a forum for regulatory bodies, working with medical device manufacturers and other organisations possessing relevant expertise, to harmonise global approaches to regulating the quality, safety, and clinical performance of medical devices. The purpose of the GHTF is to encourage convergence in regulatory practices relating to the protection of public health, promote technological innovation and facilitate international trade.

The primary manner in which the GHTF achieves its purpose is via the publication and dissemination of harmonised guidance documents on basic regulatory practices. Once endorsed as Final Documents by the GHTF, they can then be adopted/implemented by member national regulatory authorities. As at July 2000, the GHTF had approved 15 final Guidance Documents and Australia proposes to adopt these (where appropriate) into the new Regulations (or as 'Guidelines') for use under the new regulatory system for medical devices.

Australia will be represented at the GHTF conference by Ms Rita MacLachlan, Mr Tony Gould, Mr Andrew Muir, Mr Mike Flood and Dr Jorge Garcia from the Therapeutic Goods Administration (TGA) and Mr Brian Vale, Ms Rosemary Hides and Mr Johan Brinch from the Medical Industry Association of Australia (MIAA).

The Conference will comprise meetings of the four GHTF Study Groups, a GHTF Plenary Session, a number of open information sessions, a Chinese Regulatory Procedures meeting, a number of concurrent special topic sessions and meetings of the Asian Harmonisation Working Party and the Americas Group.

The Conference signals the last major activity Canada will be responsible for in its capacity as the GHTF Chair. From January 2001, the Chair will rotate to Australia for the next 18 months. The TGA will provide the chair and secretariat support for the GHTF during this period.

Further information on the GHTF may be obtained from the website - [www.ghtf.org](http://www.ghtf.org)



## MEDICAL DEVICE REGISTRATION NEWS

Medical Device registration application processing times continue to progress well. During the quarter January–March 2000, 50 submissions were finalised, with an average TGA time of 57 days. In the quarter April–June, 52 submissions were completed, with an average time of 72 days. The Device Registration and Assessment Section has now maintained an average time well below the target of 90 days for the last four quarters. At the same time, the number of submissions for 99/00 has been significantly higher than in the previous financial year. The backlog of device applications in progress is still decreasing steadily.

The Section is actively working to improve these statistics even further, and seeks cooperation from sponsors when preparing submissions to carefully check all the details. The previous Therapeutic Device Bulletin (May 2000) provided information on the presentation of data.

Sponsors should be aware that changes to an application will not be accepted once the application has been received for registration. For example, changes to labels, design of product, use time or temperature (for disinfectants) contributes to considerable delays in the evaluation process. Such changes should be submitted to TGA as a variation, once the product has been registered. Sponsors may save administrative time by submitting the variation during the evaluation stage, although the data will not generally be assessed until after the original submission has been approved and the product entered on the Australian Register of Therapeutic Goods.

Sponsors should also note that information on progress of submissions will not be supplied other than to the authorised persons nominated by the sponsor. In some cases, the authorised person/s may differ between submissions, and so sponsors are encouraged to check that the authorised persons are still current and appropriate when a submission is lodged.

Advance news of pending submissions is strongly encouraged. This aids both the TGA planning process and that of the sponsor. The TGA understands that the larger multinational companies in particular often plan several months ahead, so please tell us too!

In order to facilitate the evaluation process, we encourage pre-submission meetings to discuss data requirements and to familiarise staff with the product. Should you wish to arrange a pre-submission meeting, please contact Shelley Tang on (02)6232 8793, facsimile (02)6232 8785 or Email [shelley.tang@health.gov.au](mailto:shelley.tang@health.gov.au) or Michael Flood on (02) 6232 8613 or Email [michael.flood@health.gov.au](mailto:michael.flood@health.gov.au).



## INCIDENT REPORTS

*Incident reports are published in this bulletin to assist health care professionals and sponsors of products work with the TGA to promote the safety, quality and efficacy of medical devices. They are based on information supplied to the TGA that may not be independently verified as to its accuracy, completeness or causal relationship to the product or its supplier.*

*A sample of incidents reported over the last three months, along with outcomes from our investigation process is provided below.*



### Hollow Fiber Polysynthane (PSN) Dialyser

The TGA was notified of an incident report involving Hollow Fiber PSN Dialysers by the Global-Medical Devices Vigilance Report Scheme. This incident was also reported in the ECRI Health Devices Alerts (May 19, 2000).

The PSN dialyser is a single use device that is sterilised with ethylene oxide. The Renal Division of Baxter Healthcare (USA) has received reports of patient reactions with this product. Patients may experience hypersensitivity (allergic) reactions during dialysis. Signs and symptoms may include asthmatic reactions, respiratory arrest, pruritus, urticaria, erythema, hypotension and hypertension. The majority of the reactions have occurred during the first exposure to the PSN.

The manufacturer claims that the incidence rate of 0.003% is lower than that reported in the literature on the expected incidence (0.005%) of hypersensitivity reactions, sometimes referred to as Type A reaction. These reports have been received in clusters and are not correlated to any particular product code or lot number.

The cause of the reactions is not conclusive at this time, although it may be associated with the ethylene oxide sterilisation process. The manufacturer initiated an urgent product information notice in February 2000. A similar action was undertaken by the Australian sponsor, Baxter Healthcare Pty Ltd, who sent a letter to all purchasers in Australia in March.

#### Recommendations

It is important that PSN dialysers are primed in accordance to the instructions for use. The priming process is essential for the removal of air and residues within the dialyser before initiating dialysis treatment.

Listed below are key elements of the priming process, which can be found in the PSN direction sheet:

- (1) Use a full litre (1000 ml) of sterile isotonic saline (0.9% saline) to ensure adequate rinsing of the dialyser. Establish the dialysate flow rate after the first 500 ml of saline has been rinsed through the dialyser;
- (2) Discard the saline solution in the dialyser and extracorporeal circuit, and reprime the circuit so that the rinsing saline is not administered to the patient; and

- (3) If treatment is not initiated immediately after priming, discard the priming solution in the dialyser and replace it with fresh saline to remove any ethylene oxide that may have leached from the dialyser during the day.

TGA and Baxter Healthcare also recommend that all dialysis centre staff familiarise themselves with the procedures for addressing patient reactions during haemodialysis.

DIR 11984



### Mallinckrodt Warmtouch 5800 Patient Warming System

The TGA received incident reports from two hospitals involving the Mallinckrodt WarmTouch 5800 Patient Warming System. The hospitals reported intermittent fan failure and overheating, melting and smoking of the housing. They expressed concern regarding the potential for fire in the operating room environment.

The fan submanufacturer identified a problem with the coil insulation in the WarmTouch 5800 motor, believed to be the source of the intermittent blower failure, and is taking steps to prevent further problems. The heater coil has a square cross section and the housing on failed units melted near the corners of the coil closest to the housing. The unit is not designed to switch off the heater when the blower fails and relies entirely on thermostat cut-outs that take time to activate, allowing the plastic housing to overheat and deteriorate over time.

#### Recommendation

All units are to be fitted with an aluminium cone insert between the heater and plastic housing, including those in service, as part of a recall for product correction. The cone insert is intended to spread the heat and prevent hot-spots. Testing of the unit during simulated failure indicate that the temperature of the housing is considerably reduced by the cone insert. The TGA will continue to monitor the performance of corrected units. For further information regarding the recall please contact Geoff Rose of Mallinckrodt Australia on 03 9751 3353 or TGA's Incident Report Investigation Scheme on 1800 809 361.

DIR 11282 & DIR 11845

## **Metron Accutrac 2 Traction Machine – Software Problem**

The TGA has been advised by a hospital Biomedical Engineer that Metron Accutrac 2 Traction Machines have the potential to cause patient injury in one of their five operating modes.

The problem is confined to mode 5 operation of the machine. If traction is stopped midway by pressing the START/STOP key and then the machine is re-started by selecting GO, traction force escalates beyond the set traction by 15kg to 50kg. Intermittent keypad and timer lockup also occurs. The consequence is possible injury to the patient. The problem was detected during a routine service and there was no actual patient involvement.

After the report to TGA, Metron have confirmed that the Accutrac 2 has a problem in its software, which could be hazardous for a patient. Metron are issuing a Recall for Product Correction during which the software will be upgraded to remove Mode 5 operation from the operating menu of the machine. This involves replacing an EPROM chip within the machine. This modification may require the return of machines to the Metron factory or to a local distributor.

### **Recommendation**

Owners of Metron Accutrac Traction Machines should not operate the machine in Mode 5 as this could lead to patient injury. Please contact Mr Rob Hopkins at Metron on 03 9775 1234, for details of the upgrade.

DIR 11983

## **THERAPEUTIC GOODS ADMINISTRATION INCIDENT REPORTING AND INVESTIGATION SCHEME STATISTICS REPORT**

### **Device Incident Reports 01/01/2000 to 30/06/2000**

**Number received** **289**

#### **Cause of Problem**

Biocompatibility	22
Component failure	42
Contamination	9
Design	14
Diagnostic Inaccuracy	4

Electrical	11
Inadequate Instructions	4
Labelling	7
Maintenance	4
Manufacture	39
Material/Formulation Deficiency	37
Mechanical	26
Not Device Related	32
Other	44
Packaging/Sterility	7
Quality Assurance	6
Unknown	34
Wear/Deterioration	11

#### **Effect**

Death	13
No Injury	200
Serious Injury	11
Temporary Injury	65

#### **Source Category**

Medical Administrator	10
General Practitioner	6
Specialist	27
Coroner	11
TGA	8
Nurse	28
Blood Bank	33
Competitor	2
Hospital Supply Service	62
Other	3
Patient/User	10
Sponsor	62
Overseas Advice	11
Physiotherapist	1
Biomed Engineer	15

#### **Result of Investigation**

Bulletin Article	6
Company Warned	1
Compliance Testing	2
No Further Action	133
Not Investigated	77
Other	17
Problem Not Confirmed	15
Product Improvement	32
Recall/Hazard Alert	8
Refer to GMP	11
Safety Alert	7
User Education	18

## Leakage In Medtronic BP Series Pumps For Extracorporeal Circulation

TGA has been assisting the Victorian Coroner's Office in their investigation into the death of a baby due to leakage of blood from a Medtronic Bio-Pump BP-50 Extra Corporeal Centrifugal Blood Pump that was being used in an extra corporeal membrane oxygenation (ECMO) procedure.

After 44 hours of use the pump head cracked, causing severe blood loss. TGA scientists examined the pump and determined that the failure is consistent with the device having been exposed to an incompatible fluid.

The instructions for use state that: 'The Medtronic Biomedicus Bio-Pump is indicated for use only with the Medtronic Biomedicus Bio-Console to pump blood through the extracorporeal bypass circuit for extracorporeal circulatory support for periods appropriate to cardiopulmonary bypass procedures **(up to six hours)**'. Information received during the investigation of this incident indicates that the use of this device for (long) ECMO procedures is quite common. Moreover, the perfusionists at the hospital where this incident occurred seemed to have made a clinical decision that this device is the best alternative for the procedure.

The instructions for use warn that alcohol or alcohol based fluids must not come into contact with any surface of the pump. There are also cautionary labels on the bioconsole's biopump receptacle that warn users not to use alcohol on any of the pump surfaces. The pump housing is manufactured from injection moulded polymethyl methacrylate (also known as PMMA or acrylic). Internal stresses that are introduced into the material during the injection moulding process act in conjunction with the incompatible fluid to cause the acrylic to crack. Acrylic is incompatible with several substances, but of these only ethanol (alcohol) and Forane are commonly used in hospitals. Alcohols are sometimes added to formulations of products as solvents. For example, chlorhexidine hand cleanser contains isopropanol, which also has a mild effect on acrylics.

Despite these measures, there have been 83 other instances world-wide of cracking resulting from exposure to incompatible fluids. As far as TGA is aware, the case under investigation by the coroner has been the only death resulting from the problem. There have been 2.4 million pumps sold in the 15 years since their introduction.

Medtronic has released a second generation BP-80 Bio-Pump. The new Bio-Pump is called the BPX-80 which is not manufactured from PMMA. The design has been tested and determined to be resistant to the effects of alcohol and alcohol based solutions. The BPX-80 is still incompatible with Forane but this has not been found to lead to pump leakage in testing. The labels on the BPX-80 will contain a warning about the spillage of Forane on the surfaces of the pump.

Although some improvements have been made to the smaller capacity version of this pump (BP-50) to alleviate the problem, the BP-50 will continue to be manufactured from injection moulded acrylic for a short period until the BPX-80 has been fully implemented.

### Recommendation

Users of any medical device should be familiar with the instructions for use and warnings associated with the use of the device(s).

Ensure that all staff (including cleaning and other support staff) and visitors are aware that the surface of the pump must not be wiped with any fluid or fluid impregnated cloth.

Wherever possible, use the BPX-80 model of this pump.

Under no circumstance should alcohol or alcohol containing substances come into contact with any pump surfaces.

Many hospital preparations contain alcohol. **Contact with any substance whatsoever should be avoided.** It is recommended that this precaution be used regardless of pump make or model.

DIR 11795

## Greiner Vacuette 5ml Draw/Gel Blood Collection Tubes

Blood collection tubes are a high throughput product used in various different locales, including hospitals, surgeries and pathology services. Depending on the tests required the blood collection tubes come pre-packaged with a variety of chemicals to ensure the blood is in the most desirable state for testing. For example, blood collection tubes can be provided pre-packaged with a gel containing clotting agents allowing the serum to be separated from the red blood cells. After centrifugation, the gel should be positioned in the tube between the serum and the clotted red cells, the serum can then be sampled for biomedical testing. In this incident, isolated batches of Greiner Vacuette 5ml Draw/Gel Blood Collection Tubes, Model No 456078, were not effective at the centrifugation stage. A Hospital Medical Scientist reported that after centrifugation, small droplets or globules of gel stayed on the surface of the serum and were being picked up by the various biochemical analysers, causing errors in the analytical results.

### Recommendation

After the sponsor had been contacted by the TGA, two batches were identified as faulty (109905 & 119906). Although not all of each batch were affected it was decided in consultation with TGA to recall both batches. The recall has now been completed, stock has been replaced and all affected stock destroyed.

DIR 11909

## **Infusion Pumps – Need for Cross Checking Procedures during Programming**

A hospital reported an incident in which a patient received an overdose whilst undergoing multiple infusions via a multi-channel infusion pump – an Alaris Medical Imed Gemini PC-4. The patient recovered after treatment for the over-infusion. The pump's event history log indicated that accidental miss-programming was likely to have caused the over infusion. It seems that a decimal point was somehow missed during programming ('22' was entered when '.22' was intended). It is not known whether the decimal point was simply not keyed, or if it was keyed but failed to register in the pump memory. In any case, the user is expected to review programmed data and confirm its acceptance before any change is executed. The hospital involved is implementing procedural controls to decrease the likelihood of accidental miss programming.

### **Recommendation**

Human entered data and reprogramming introduce the possibility for errors. Clinical procedures should include a check of all critical data entered or keyed into infusion pumps and other computer controlled critical care devices.

DIR 11905

## **Hydroview Intra-Ocular Lens and Calcium deposits on the lens**

There have been a number of reports about 'fogging' of the Hydroview lenses. Bausch and Lomb Surgical have been investigating the matter of clusters of these problems around the world.

To date there have been only a few incidents of this happening in Australia that have been reported to the TGA. The incident rate in Australia and around the world is very low and the company has notified all Ophthalmic Surgeons in Australia that use their product of this problem.

Analysis by Bausch and Lomb has confirmed calcium phosphate deposits on both the posterior and anterior surface of the lens. No other part of the lens is affected.

The problem has been found as early as 3 months and up to 30 months post operatively. The deposits look different from posterior capsular opacification and they cannot be removed with an Nd:YAG laser.

These calcium deposits can have a negative effect on vision, although very few lenses have been replaced due to this problem. No inflammation or other adverse clinical conditions have been associated with this problem.

The problem is a well known complication associated with the use of this type of device, however both the TGA and

the manufacturer are concerned about above normal local incidence rates.

Bausch and Lomb are investigating this problem and several possible causes have been proposed. The clustered nature of the adverse event reports indicate that there may be local factors influencing this problem. Other factors such as patient pre-existing pathologies, surgical environment, including local or general treatment and storage conditions are being investigated.

### **Recommendation**

Please report any incidents of this type to the Therapeutic Goods Administration (TGA), Incident Report Investigation Scheme on 1800 809 361 and/or Bausch and Lomb on 1800 251 150. Please keep the explanted lens if removed so it can be sent to the TGA on request.

DIR 11884.

## **Premature end of battery life on Tempo and Meta 1256D Pacemakers**

A user report to TGA dated 28 February 2000 states that a patient had presented with dizziness. The patient's Tempo pacemaker had a complete loss of output and there had been difficulty or inability to communicate with the device. TGA received the pacemaker on 14 March 2000. Laboratory investigations confirmed loss of output and that communication could not be established with the explanted pacemaker.

To date, the TGA is aware of a total of 6 reports of similar incidents out of a total of 1,128 units distributed in Australia. There have been 24 complaints out of approximately 3,000 in the Asia Pacific region and 63 incidents out of a worldwide supply of 22,000.

Tests revealed that the solder used to connect the flexible circuit to the battery connectors had been contaminated with a substance that promoted 'dendritic growth' of tin across the terminals in the connectors, causing a short circuit and premature battery depletion. The problem affects all models of Tempo pacemakers within the serial number range OU6100 663 – OU622 7334 in which this 'suspect solder' was used.

A total of 991 Australian patients have received affected pacemakers. The Australian sponsor knows the implanting physician, date and hospital of all the affected patients. The sponsor has the names of 960 of those patients.

During the recall proceedings, TGA sought independent clinical advice from the Cardiovascular Panel of the Therapeutic Device Evaluation Committee (TDEC). TDEC is an expert committee advising the Minister and the Secretary of the Australian Department of Health and Aged Care.

**Recommendation:**

Hazard Alert Notifications were issued on the 5<sup>th</sup> June 2000. Implanting physicians and follow up centres should have received these by now.

Consideration should be given for pacemaker replacement for those patients judged to be totally pacemaker dependent. For those patients judged not to be totally pacemaker dependent, the pacemaker should be analysed for signs of abnormality (eg premature end of life indications). Consideration for replacement should also be given to pacemakers displaying any such signs of abnormality.

Please report any similar events to both the distributor and the TGA's Medical Device Incident Report Investigation Scheme, submitting the explanted pacemaker with the report.

DIR 11898 R2000/128-132.

### **Safety Alert Notice for Microline Laparoscopic Scissors**

Two patients have received burns around the site of the trocar used for Microline Laparoscopic scissors. The injury occurred as a result of arcing of electrical current between the handle of the scissors and the trocar through which the instrument is inserted into the patient.

The insulation on the scissors that were returned to the sponsor had been damaged. It is difficult to tell how the insulation was damaged but some possibilities are passing the instrument down tight fitting ports or cleaning with scouring pads. The scissors have an 'O' ring at the distal end of the shaft that ensures the handle and tip blades are sealed together as much as possible. One of the scissors was missing the 'O' ring. The 'O' ring of the other was damaged.

**Recommendation**

These type of instruments need to be used correctly and cleaning of these instruments must be done according to manufacturer's instructions. These particular scissors have 'O' rings that need to be correctly in place and intact. Checking of these 'O' rings should be part of an ongoing maintenance program.

The sponsor of Microline scissors, EMT Healthcare, issued a safety alert to reinforce the manufacturer's instructions for use. The safety alert emphasised:

1. the need to check insulation on the instrument on a regular basis,
2. a visual inspection of the insulation should be made prior to use,
3. the recommendation that this instrument be used on low power coag and increase power until proper

cautery results are achieved rather than starting on a very high mode and risk blowing the insulation on the shaft, and

4. that the user make sure the 'O' rings are intact.

If you have any further inquiries about this incident and its resolution please contact either the sponsor EMT Healthcare on (02)9799 4100 or the Incident Report Investigation Scheme at the TGA on 1800 809 361.

DIR 12019

### **Dental Amalgam Capsules - Mercury Leakage during Trituration**

The Medical Device Incident Report Investigation Scheme (IRIS) received a U.S. report about mercury leakage from Kerr dental amalgam capsules. The report, from the US Air Force Dental Investigation Service, led to an IRIS investigation of the extent of the problem in Australia. Kerr Australia admits that there is a low incidence of leakage from their amalgam capsules, but they have recently redesigned their capsules to reduce the leakage.

Globally, Kerr received 545 complaints of leaking mercury capsules in 1998 and 402 in 1999. The overall incidence of reported mercury leakage represents approximately 0.001% of capsules supplied for this period. Reports of 'leakage' include all forms of mercury leaks detected, that is, within packaging of capsules, during pressing of the capsule and during trituration. In Australia the incidence was 0.003% in 1998 and 0.002% in 1999. The apparent differences in incidence can be explained by differences in incident reporting in the various markets. IRIS literature searches reveal that the problem of mercury leakage is not restricted to one manufacturer. There is always a compromise between tolerances/strength of the capsule and ease of use when they are designed. Kerr's new design departs from the usual model and, hopefully, significantly reduces leakage at all stages of amalgam preparation.

The National Institute of Occupational Safety and Health (USA) sets a Threshold Limit Value (TLV) of 0.05 milligrams of Mercury per cubic metre (mg/m<sup>3</sup>) for an eight-hour day, five day week. Similar levels are set for Australia. Kerr USA commissioned independent trials in three dental offices that had experienced mercury leakage during trituration. The first had readings taken in a room with an open amalgamator. The second had readings taken next to the amalgamator, the third had readings taken in an old amalgamator that required cleaning, a new amalgamator and in the room itself. The results in all three offices were below the levels set by the National Institute of Occupational Safety and Health (USA).

The total amount of mercury released during trituration is far below the total exposure level during placement in the

patient. A past study has shown that the total amount of mercury vapour generated during amalgam placement (6–8 ug) and wet polishing (2–4 ug) was greater than at trituration (1–2 ug). Even if there is an observable leakage of Mercury during trituration, it is unlikely that the patient will be exposed to atmospheric levels of Mercury vapour above the Threshold Limit Value (TLV) of 0.05 mg/m<sup>3</sup> for an eight-hour day, five-day week. The relatively short time exposure of patients within the dental surgery reduces their environmental exposure even further.

The normal amount of mercury lost during trituration is in the order of 1–2 ug. This is unlikely to affect the strength of the final amalgam. Large loss of Mercury will be detected during or after trituration and the change in physical properties of the amalgam should alert the dentist to a low mercury ratio. Sub-standard restorations, caused by low mercury ratio, are therefore unlikely. IRIS has not received a single report of an incident of amalgam failure associated with a mercury leakage.

There has always been a low level of leakage from amalgam capsules, irrespective of manufacturer. What has altered is the awareness of the population to environmental pollution and decreasing tolerance of employees to avoidable occupational hazards. Along with increasing awareness has come increased government regulation of hazardous substances, including mercury. The main issues are OH&S of dental staff and environmental pollution.

Mercury leakage from Kerr capsules **does not constitute an additional health hazard** to the dental staff or patients. Patient risk from room exposure to mercury vapour during procedures is insignificant compared with the amount of mercury released orally during condensation, shaping and polishing. Professor Martin Tyas, Melbourne University School of Dentistry and Lt Col Howard W. Roberts Director, Technical Evaluations, USAF Dental Investigation Service (the original reporter of the problem) agree with this conclusion.

### Recommendations

TGA emphasises the need for sufficient air circulation and changes of room air in dental offices, the need for spill clean-up kits, approved procedures for clean up after mercury leakages and effective amalgam traps on suction systems. Correct storage conditions and recycling of waste mercury and amalgam should be used to reduce the environmental level of mercury vapour, both inside and outside the dental office.

For further information on safe handling of mercury, please refer to the Australian Dental Association's publication 'Practical Guides for Successful Dentistry' which contain a Guide (No 22) called 'Recommendations in Dental Mercury Hygiene', which all members receive as a membership benefit. This is based on an NHMRC publication of the same title.

DIR 11857



## NEW SCHEDULE OF FEES AND CHARGES FOR MEDICAL DEVICES

The new charges for medical device regulation came into effect on 22 June 2000 and the new annual charges came into effect on 1 July 2000. While the overall quantum of fees and charges has increased to meet the Government's target of 100% cost recovery, in some instances fees have been reduced, for example, device listing application fees, fees for processing applications for variations to products.

### Some changes for registrable medical devices include:

High Level Registrations requiring simultaneous evaluation:

- an additional/concurrent application fee is payable for each additional application, up to a maximum amount payable of \$7,000 (including the application fee for the principle device).

High Level Registration of a new product or variation to an existing registration requiring confirmatory review of overseas evaluation report:

- an evaluation fee is payable for the initial application.

Low Level Registration of a new product or variation to an existing registration:

- evaluation fees are now levied on a per evaluation category basis; and
- a separate evaluation fee applies for disinfectants and diagnostics goods (ie. screening tests only) for in-vitro use.

### Some changes for listable medical devices include:

- labelling exemption applications - an application fee is payable for processing an application for consent under S14 of the Act.
- safety evaluation - an evaluation fee is payable for assessing whether a listable or listed device is safe for the purposes for which it is to be used.

The new fees are as follows:

Applications for listing of a therapeutic device	\$240
Processing of applications for variation/addition to the existing listing	\$240
Application requesting an exemption for a specific part of a TGO	\$240
Evaluation of safety data for a listable device	\$4000

Copies of the new schedule of fees and charges may be obtained from the TGA Publications Office on 1800 020 653 or from the TGA website at: <http://www.health.gov.au/tga/docs/html/feesach.htm>.



The current medical device listing requirements are described in the publication *Australian Medical Device Requirements Version 4 (DR4)*. Copies of DR4 and device application forms can be obtained from the TGA's website <http://www.health.gov.au/tga/devices.htm> or from the TGA Publications Office on 1800 020 653 or facsimile on 02 6232 8605.

Sponsors are reminded that applications and payments should be submitted to the TGA's Business Management Unit (BMU). Sponsors are encouraged to review the

application prior to submission, as incomplete applications may not be accepted.

**Section 31 requests**

The peak medical device industry body, the Medical Industry Association of Australia (MIAA), has agreed to a seven-day response time issued for a section 31 request. Due to time constraints it would be helpful if sponsors could please forward responses clearly marked with the associated TGAIN, to prevent any unnecessary delays in processing time.

Applications will be rejected if section 31 requests are not addressed in the specified time.

Communications relating to applications will only be made to the Australian address of the sponsor.

**Most common application deficiencies – Useful hints**

Deficiency	TGA Requirement
<ul style="list-style-type: none"> <li>Applications or Enterprise Details Forms not signed</li> <li>Applications or Enterprise Details Forms submitted with photocopied or rubber stamped signatures</li> </ul>	The Application and Enterprise Details Forms must be the signed originals
<ul style="list-style-type: none"> <li>Sponsor contact details not completed</li> </ul>	Address and telephone/facsimile numbers must be supplied. ( <i>mobile phone numbers are not acceptable</i> )
<ul style="list-style-type: none"> <li>Abbreviated manufacturer names.</li> </ul>	Submit the registered name of the manufacturers involved in the production of the device.
<ul style="list-style-type: none"> <li>Postal and site addresses for manufacturers are incomplete</li> </ul>	Full postal and site address are required for all manufacturers
<ul style="list-style-type: none"> <li>Product labels do not comply with TGO 37 (General requirements for labels for therapeutic devices)</li> </ul>	Product labels must comply with TGO 37. Refer to TGO 37.
<ul style="list-style-type: none"> <li>The manufacturer responsible for product release does not correspond to that shown on the Conformity Assessment Certificate /GMP documents or labels.</li> </ul>	Ensure that the name of the manufacturer responsible for release is consistent with the application form, the Conformity Assessment Certificate/GMP documents and the product label(s)
<ul style="list-style-type: none"> <li>Quality systems evidence is not submitted or is deficient.</li> </ul>	Sponsors are urged to submit a pre-clearance request for Quality Systems to the Good Manufacturing Practice Auditing and Licensing Section TGA (GMPALS). For further details please contact GMPALS on (02)6232 8628.
<ul style="list-style-type: none"> <li>Products belonging to separate Australian Device Groups (ADG) being put into one application form</li> </ul>	Products belonging to separate ADGs must be submitted on separate application forms

**CHANGES TO AUSTRALIAN  
THERAPEUTIC DEVICE  
BULLETIN (ATDB)**

This issue of the *Australian Therapeutic Device Bulletin* (ATDB) will be the last for this year. The format of the

ATDB for 2001 is currently under review. Information on proposed changes to the ATDB will be available early next year on the Therapeutic Goods Administration Web-site at <http://www.health.gov.au/tga/devices/devices.htm> under Australian Therapeutic Devices Bulletin or from the medical device information line on 1800 020 653.

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