

Pacific Biomedical Network Meeting





*Ministry of Health
Samoa*

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**DESIGNATION: Principal Biomedical
Officer**

COUNTRY: Samoa

**TOPIC: Continuity of Local Biomedical
Expertise**

Pacific Biomedical Network Meeting

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- Introduction: Samoa Biomedical Engineering Services
- Continuity of Local Biomed Expertise in Samoa
- Challenges
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Samoa Biomedical Engineering Services



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Scope of Services

- Medical equipment: ECGs, anesthetic units, laboratory equipment, Medical imaging equipment, sterilizers etc.
- Multi-disciplinary team: 7 staff members
- ~6,200 Medical Equipment
- Involved in the full lifecycle of medical equipment:
 - Procurement – Technical Specification, Evaluation, Bidding
 - Acceptance & Commissioning
 - Maintenance, Support, User training
 - Disposal & Replacement



Continuity of Local Biomed Expertise in Samoa



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Systems and protocols that the BME has in place to ensure workforce sustainability

- *Current and future BME staff have adequate skills and knowledge*
- *Easily understood and adaptable*
- *Maintain / improve on the quality of service*
- *Development of local expertise and independence from overseas expats*





1. Documentation

- *BME Procedure Manual*
- *Supporting Documents: Acceptance form, Inspection and Preventative Maintenance form, work request form*

2. Asset and Service Registry





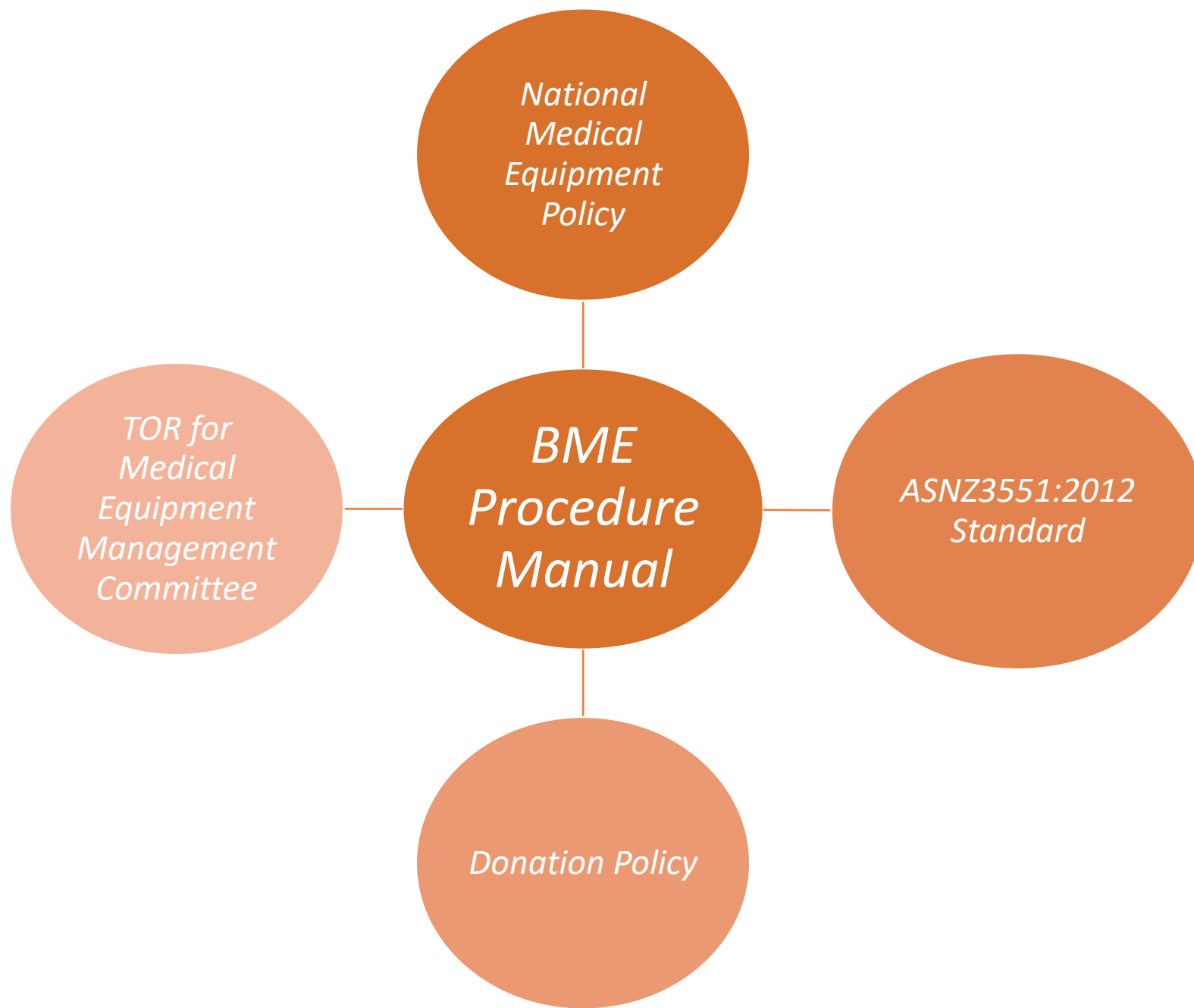
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Documentation: BME Procedure Manual

1. Includes guidelines that are followed on a day to day basis

2. Explains

- *Full Scope of BME Services in detail*
- *Organisational Structure*
- *Occupational Health and Safety*
- *Supporting Documents*



Asset and Service Registry

Asset Record

- *Contains all the of the medical equipment under BME care.*
- *Includes all information about a medical equipment.*
- *I.E. Manufacturer, model, installation date, warranty date, cost, availability of user and service manuals etc.*

Service Record

- *Records of all work performed, from administration tasks, acceptance of new equipment to maintenance and training.*
- *Useful for when technicians can look back at repeated faults for assistance.*

Challenges

1. *Influx of Medical Equipment.*

- *Not enough space*
- *Staff not being offered technical training for donated equipment*
- *Non compliant medical equipment*

2. *Inefficient methods of recording.*

3. *Lack of technical training opportunities to upskill BME staff.*

Opportunities & Development

1. CPD- Continuous Professional Development

- *Every fortnight, led by the BME team.*
- *Presentations and/or technical training on a pre-selected medical equipment.*
- *Includes mechanism of operation, preventative and user maintenance.*
- *Quizzes are carried out every 2 months to test understanding further solidify skills.*



Opportunities and Development

2. Customized Acceptance and Preventative Maintenance Forms

- Improves quality of work done on an equipment as the tests are done according to manufacturer advice.*
- Improve efficiency when performing acceptance tests and preventative maintenance.*

Opportunities and Development

3. Online Installation Training from Manufacturers

- Allowed local staff to ask specific questions to trainers.*
- Convenient as this type of training can be done at any location at any given time.*
- Builds professional relationships with trainers and manufacturers to make repair/ procurement processes easier.*

Opportunities and Development

4. Renewing of Medical Equipment Management Committee TOR

- MEMC determines Priority List and distributes it to respective donors.*
- Expedite medical equipment procurement.*
- Enforce Donation Policy.*

Recommendations



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- 1. Up-skilling BME staff by attending technical trainings (either on-site, on-line or at manufacturer location).***
- 2. Implement a new asset and service registry system that is more efficient than existing one, together with the appropriate tools: Tupaia System.***
- 3. Regular updating of procedure manual, related and supporting documents for the sustainability of BME service.***

Questions

Contents of Procedure Manual

NHS Samoa

Biomedical Engineering Procedure Manual

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Headings of Asset Record

BME No.	NHS Asset No.	Asset No.	Hospital	Area	EQUIPMENT	MANUFACTURER	MODEL	SERIAL No	Installn Date	WTY Exp	Lifespan yrs	End of expected life	Replacement Due?	("Replaced", "Obsolete", blank)	Replaced with New Asset No.	Supplier	Project/Donor (E.g. SWAp PhA Lot2 etc)	Labelled	Currency	Purchase cost (\$)	Purchase cost (WST)	Estimated replacement cost (WST)
14531000	NHOPT145310	NHOPT	MTII	Operating The	Laryngoscope	Gima		N/A	20/06/2014		7	20/06/2021	Due for replacement			South Austral	SWAp PhA Lot	1		\$420	\$827	827

Comments	Operator Manual	Service Manual	Reference Manual	Comment 2	Condition Poor, Fair, Good	PM (yes = 1, 0 = no)	PM by whom	Risk	Frequency	Rationale	PM Scheduled month name	PM Scheduled month 1	PM Scheduled month 2	In Service/Disposed/Removed/BME possession	Estimated cost of parts for service	Outsource?	Training required?	What Parts?
Delivered and under the care of NIM Tasi Leo. Charging station Serial					Good	0		Low						In Service				

Headings of Service Record

Request date	Response date	Priority	Work code	Work Type	BME No	Location	Area	Equipment Description	Brand	Model	Serial No	Fault Description/Work request details	Work performed
													Open unit and found dirty components and beard. Cleaned and assemble again - Failed. Open unit again and replace screen from unit 14101001

Root cause	Visual Inspection	Electrical Safety (Pass / Fail / NA)	Part(s) Used	Qty Used	Cost of Part(s)	Status after assessment	Additional Comments	Date Completed	Month	Total hrs	Technician	Job span (days)	Response Time	Reason for Downtime	Pending	Overall Location

Donation Policy / TOR

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