

Information sheet No.6

Rehabilitation Technology Unit RPH Shenton Park Campus



Interim Prosthetic Services

An Interim Prosthetic Service (IPS) is not just the provision of an artificial limb. It is the complete prosthetic service provided to the amputee in support of his or her rehabilitation. Prosthetic rehabilitation of an amputee is a process that ideally begins as soon as the surgery is complete and ends when the amputee is able to use a prosthesis as independently as possible within the community. The Interim Prosthetic Service within Royal Perth Hospital has been recently formed to;

- ◆ *provide comprehensive services in support of the Amputee Rehabilitation Service at SPC*
- ◆ *provide interim prosthetic services to patients referred to RPH from country Hospitals, according to need.*

The Interim Prosthetic Service, as a section of the State Orthotics and Prosthetic Service of the Rehabilitation Technology Unit at SPC, is staffed by qualified and experienced Prosthetists to provide;

- ◆ *Preprosthetic Management*
- ◆ *Provision of the Interim Prosthesis*

PREPROSTHETIC STUMP MANAGEMENT & RIGID REMOVEABLE DRESSINGS (RRD)

In most cases prosthetic rehabilitation commences prior to the provision of an interim prosthesis with the prosthetist fitting an RRD as part of an oedema management program.

Rigid removable dressings are used to control and reduce stump oedema (swelling) and to protect the stump from minor trauma.

They are applied by the prosthetist as an adjunct to stump bandaging and may be reapplied where necessary by the patient or other staff members.

The rigid removable dressing has three component parts. It consists of the rigid dressing, which is a lightweight socket made of a composite material, a suspension strap, and a stump sock or socks. The rigidity of the socket prevents further oedema (swelling), and the timely addition of extra stump socks promotes stump shrinkage. Reducing stump volume is essential for the fitting of a prosthesis.

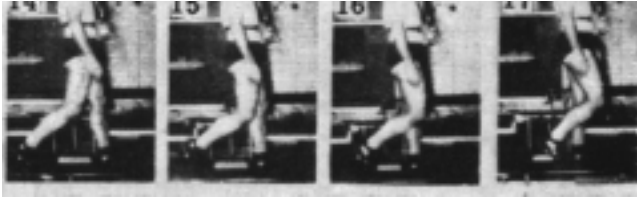
The RRD is also an effective method of reducing external forces applied to the stump which, if uncontrolled, can lead to a poor fibrous matrix within the connective tissue that forms the healed wound. This scar tissue is less able to tolerate stress and is then more prone to breakdown during ambulation with a prosthesis. The RRD can prevent or reduce suture line damage incurred during patient falls, a common occurrence in the amputee population.

RRD's provide the following benefits:

- ◆ *Enhanced wound healing through control of oedema and external forces.*
- ◆ *Allow frequent wound inspection.*
- ◆ *Permit knee flexion.*
- ◆ *Reduce stump pain.*
- ◆ *Simulates the donning and doffing of a prosthesis.*
- ◆ *Allow adjustment of fit.*

Secondary patient benefits of using a RRD are early stump handling, learning to monitor their stump and RRD fit, which is a skill they will need when using a prosthesis, and early prosthetic intervention and education.

The IPS is keen to assist the Hospital with state of the art, preprosthetic stump management



PROVISION OF THE INTERIM DEVICE

The prosthetist assesses the amputee's suitability for prosthetic rehabilitation, as part of the amputee rehabilitation team, and advises on prosthetic prescription.

The interim prosthesis is the first prosthesis an amputee receives and is designed to enable the amputee to recommence walking and to accommodate the many changes in the patients stump shape and volume that occur during the rehabilitation process. It is fabricated using adjustable componentry to allow alterations to be made in the relationship between the socket and foot to achieve a near normal gait pattern for the amputee. The process of providing an interim prosthesis involves:

- ◆ *Assessment of the amputee and their stump*
- ◆ *Taking a plaster cast of the amputee's stump*
- ◆ *Modification of the cast so that the finished prosthesis redistributes pressure away from bony or painful areas of the stump.*
- ◆ *Fabrication of the prosthetic socket*
- ◆ *Assembly and alignment of the prosthetic components*
- ◆ *Fitting the prosthesis on the amputee*
- ◆ *Commencing walking and providing initial gait training.*

ONGOING PROSTHETIC CARE

The interim prosthetic service does not end with the provision of a prosthesis. This is the beginning of a process that involves the amputee learning to walk again, handle different types of terrain, manage ADL's and regain their confidence and independence.

The whole professional team including the amputee is involved during rehabilitation with the Prosthetist's role being to;

- ◆ *Maintain the fit of the prosthesis and optimize the patient's gait pattern by dynamically aligning the prosthesis.*

- ◆ Provide initial gait training
- ◆ Provide training in donning and doffing techniques
- ◆ Educate the amputee in the use and care of the prosthesis
- ◆ Help manage the remaining foot if that foot is found to be "at risk" of amputation due to neuropathy, deformity or poor circulation. This management involves organizing appropriate foot orthoses and/or footwear.

ACCESS TO SERVICES

The role and responsibilities of the Interim Prosthetic Service will evolve with time and experience. We are committed to continual improvement of the quality of interim services and to the introduction of state of the art practices in support of the Amputee Service

PREPROSTHETIC SERVICES The IPS will attend the patient as soon as possible post-amputation, with view to providing appropriate stump dressings and to assist Ward staff with the pre-prosthetic management of the patient. The IPS is keen to provide both patient and staff training to assist in this process.

PROVISION OF AN INTERIM DEVICE. Patients referred to the care of the RPH Amputee Service will be provided interim services in the context of the rehabilitation programme offered by the Amputee Service at SPC. Early progress towards rehabilitation is encouraged and may involve both inpatient and outpatient attendances for prosthetic services

Funding of the interim prosthesis is at the discretion of the WA Limb Service for Amputees, which may require co-payment or the recoup of funds where applicable

for further information, please feel free to contact;

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or

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