

# SSWAHS EBP Summary Sheet

## PART A – SEARCHING THE EVIDENCE

**1. Date Commenced: January 2006**

**2. EBP Question**

*(The question should identify the patient or problem to be treated, the therapy of interest, the comparison therapy, and the outcomes of interest).*

*Which post-op dressings are the most effective for acute BKA's on healing times and rehab outcomes*

**3. Group Addressing the Question:**

*(Please type in bold the MAIN contact person for this question)*

Names: **Wendy Robinson, Jennifer Ko**, Rosa Marco, Nicola Shelton, Karl Schurr, Clare Davies, Etesa Polman, Greta Nazareth, Julie Nugent, Patricia Pamphlet, Karen Langdon

Hospital: Bankstown hospital

Area of Physiotherapy Department: Rehabilitation

**4. Why Was Question Addressed?**

*(Try to identify WHY you looked at this question, why was it important to answer this clinical question?)*

*The NSWPAR amputee group and the recent Dept of Health recommendations all support the use of RRD's in BKA's. We are not currently using them, and wanted to look at the evidence. We also have vascular surgeons that are not agreeable for their patients to be managed with rigid dressings.*

**5. Is there a 'clinical practice guideline' already available relevant to your question?**

*(Try a search under cochrane, or area specific guidelines eg. Stroke - <http://www.ebrsr.com/>)*  
NO

**6. Strategy Used to Search for Evidence**

Databases searched	Search Strategy (key words)	Time taken to search database	Number of articles/reviews found			
			RC T	SR	CP G	NC T

Medline, Cinahl,	Rigid dressings, amputee, rehabilitation	30min	9	1		
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(RCT= Randomised Controlled Trial, SR= Systematic Review, CPG= Clinical Practice Guideline, CT= Non-Controlled Trial)

## 7. Reference List of Articles Retrieved from Search

(Please use correct and complete references)

Smith et al, 2003:Journal of Rehabilitation Research and Development, vol 40, No. 3, May/June 2003

Mooney V, Harvey P, McBride E, and Snelson R ‘Comparison of postoperative stump management: plaster vs soft dressings’: J. Bone and Joint Surgery. 53-A 1971. 241-249

Deutsch et al, 2005. ‘Removable rigid dressings versus soft dressings: a randomized, controlled study with dysvascular, trans-tibial amputees’. Prosthetics and orthotics international Aug 2005; 29(2): 193-200

Mueller M. ‘ Comparison of removable rigid dressings (RRD) and bandages in prosthetic management of patients with BKA’: Physical Therapy. 1982. 1438-1441

PA Isherwood, J C Robertson, and A Rossi. ‘Pressure measurements beneath BKA stump bandages: elastic bandaging, the Puddifoot dressing and a pneumatic bandaging technique compared’: British J. of Surgery 1975

Y Wu, RD Keagy, HJ Krick, JS Stratigos, HB Betts. ‘An innovative removable rigid dressing technique for below –the-knee amputation’: The Journal of Bone and Joint Surgery, 1979, vol. 61-A, NO. 5, pp. 724 – 729.

Woodburn, K.R. Sockalingham, H. Gilmore, M.E. Condie and Ruckley, C.V. : A randomised trial of rigid stump dressing following trans-tibial amputation for peripheral arterial insufficiency. Prosthetics and Orthotics International 2004

Vigier et al (1999). Healing of Open Stump Wounds after Vascular Below-Knee Amputation: Plaster Cast Socket with Silicone Sleeve vs Elastic Compression. Arch Phys med rehab 1999; 80: 1327-30.

Baker et al, 1977. The healing of Below Knee Amputations. The American Journal of surgery, 133, page 716-8

Jones,R; Burniston,G. A conservative approach to lower limb amputations: Review of 240 amputees with a trial of rigid dressing: Medical Journal of Australia October 1970

**8. Please attach worksheets of relevant information:**

*(To be completed for each article reviewed. Cut and paste additional worksheets as needed)*

**WORKSHEET FOR SYSTEMATIC REVIEWS**

**Title:** Post operative dressing and management strategies for transtibial amputations: A critical review

**Authors:** Smith et al, 2003

**Journal & Date:** Journal of Rehabilitation Research and Development, vol 40, No. 3, May/June 2003

**Reviewed by** Wendy Robinson and Jennifer Ko

Purpose of Systematic review	To review postop dressings and management strategies for TTA
Methods, how did they find the relevant trials? <i>(Include databases searched, search terms and selection criteria's if known)</i>	Medline 1960 – 2002 Pubmed 1960 – 2002 Check of all ref. Lists, book chapters and contacted content experts. Controlled and non controlled trials were included if clinical outcomes and data on both groups.
Methods, how did they assess their individual validity?	10 controlled trials included, only 4 RCT's. All measured different outcomes, used different techniques so comparison and pooling of data impossible. Studies were poor quality eg. No blinding of assessors with any trial.
Results, what were the results, were they consistent from study to study?	<ul style="list-style-type: none"> <li>• <b>Post-operative complications – soft dressings 65% cf. air cast 15.8% (p&lt;0.05)</b></li> <li>• <b>Higher level amputation required – soft dressings 43% cf. air cast 0%(p&lt;0.05)</b></li> <li>• <b>Volume decrease – soft dressings 31.2 cf. short RRD 70.1 (p&lt;0.05)</b></li> <li>• <b>Time to initial rehab – soft dressings 35.5 days cf. Thigh level rigid cast 29.6days (p&lt;0.05)</b></li> <li>• Time to wound healing – soft dressings 109.5 days cf. short RRD's 46.2 days (??not significant)</li> </ul>

	<ul style="list-style-type: none"> <li>• Time to primary wound healing (not signif)</li> <li>• Time to secondary wound healing (not signif)</li> <li>• Postoperative pain (not signif)</li> <li>• Use of prosthesis (not signif)</li> <li>• Weeks to permanent prosthesis or final ambulation (not signif)</li> <li>• No. of falls (not signif)</li> <li>• Length of stay (not signif)</li> <li>• Rehabilitation failure (not signif)</li> <li>• Mortality (not signif)</li> </ul>
Do these results apply to your patient group?	Yes
Conclusion	<ul style="list-style-type: none"> <li>• Rigid removable dressings are preferable to soft dressings in reduction of stump volume and reducing time to initial rehab.</li> <li>• Air cast are preferable to soft dressings in reduction of postop complications and further amputation revisions</li> <li>• No comparisons are done between RRD and air casts</li> </ul>
Clinical Implications	<p>Poor quality trials – more research needed to fully answer question.</p> <p>Soft dressings are the worst post op management</p>

## **WORKSHEET FOR CLINICAL TRIALS**

**Title: Comparison of postoperative stump management: plaster vs soft dressings.**

**Authors: Mooney V, Harvey P, McBride E, and Snelson R**

**Journal & Date: J. Bone and Joint Surgery. 53-A 1971. 241-249**

Purpose of study	To compare soft dressings to plaster cast to plaster cast with pylon (all applied immediately after surgery)
Design of study, score on Pedro rating scale	Not an RCT. Formal QA project. Admissions to a specific ward allocated to one of the intervention groups for 2 months. Then admissions changed to another intervention group for the following 2 months
Subjects, inclusion, exclusion	182 BKA's all with diabetic cause – 98 female

criteria Details, age, source. Is this group similar to your clients?	Ave age: 66.4yrs Younger population?			
Intervention for experimental group Nature, Intensity	All patients received their type of intervention until wound healing and fitting of temporary prosthesis. Group 1: Soft dressings: compressive figure of 8 bandage Group 2: Elastic plaster then POP reinforcement with suspension belt to waist Group 3: As per Grp 2 plus aluminium pylon and foot for early weight bearing			
Control Group, what intervention did they receive?	No control			
Measures	<ul style="list-style-type: none"> <li>• Success = Full Healing</li> <li>• Failure: Wound not healed or wound breakdown</li> <li>• Revision to AKA</li> <li>• Progress to definitive</li> </ul>			
Results <i>(Include 95% confidence intervals and consider CLINICAL significance of results)</i>		Group 1	Group 2	Group 3
	Success (Full Healing)	59%	65%	74%
	Failure: Wound not healed or wound breakdown	41%	35%	26%
	Revision to AKA	22%	6%	12%
	Progress to definitive	39% (av=40 wks)	52% (av= 32 wks)	59% (av = 34wks)
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Interesting and progressive idea for intervention (1969-71) Not an RCT so difficult to draw any meaningful implications for this study – not able to compare group outcomes Interesting to note the extended times for progress to definitive in all groups			
Clinical Implications	Suggests that plaster casts fitted immediately following amputation may reduce healing time and decrease time to fitting of definitive			

*(To be completed for each article reviewed. Cut and paste additional worksheets as needed)*

## WORKSHEET FOR CLINICAL TRIALS

**Title:** Removable rigid dressings versus soft dressings: a randomized, controlled study with dysvascular, trans-tibial amputees

**Authors:** Deutsch et al, 2005

**Journal & Date:**

Prosthetics and orthotics international Aug 2005; 29(2): 193-200

Reviewed by Wendy and Jennifer

Purpose of study	<i>RRD v's SSD</i>
Design of study, score	<b>RCT</b>

on Pedro rating scale	<b>Pedro 4/10</b> – Given the nature of the trial, unable to get a high pedro score le. Can't have blinding of subjects and therapists Dropouts 38% - unwell group of patients with 6 deaths, revisions and medical complications No intention to treat - ?impossible However, should have had blinded assessors (but v. objective measures with little bias possible), and no concealment of allocation mentioned??
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	50 dysvascular TTA Data collection ceased as it was considered by the team 'unethical' to continue – they felt RRD were far superior. Yes, similar to our patients
Intervention for experimental group Nature, Intensity	RRD done within 20minutes of surgical wound closure, fitted over a prosthetic sock Worn continuously except for dressing changes 20minutes daily (exactly the same as what we're proposing) Worn 6 months post surgery when not in a leg.
Control Group, what intervention did they receive?	Soft dressing Intensity ISQ to above  Both groups went straight into a definitive leg with pelite liner
Measures	No of socks/sockets used in 6 month (indication of decrease in stump volume) No of days; <ul style="list-style-type: none"> <li>• Amp. To adm. To rehab</li> <li>• Amp to fitting prosthesis</li> <li>• Amp to discharge</li> <li>• Amp to primary wound healing</li> </ul>
Results (Include 95% confidence intervals and consider CLINICAL significance of results)	Time to primary wound healing trend towards clinically sign ( $P=0.07$ ) – av. 2 weeks earlier in RRD group CI = -1 to 28 days (??probably insufficient power and numbers of subjects given large SD's)  Other measures ISQ
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Weak evidence to support use of RRD for wound healing. Needed more stat power, difficult to improve pedro score more than 6/10  Intervention v. easy to administer with little expense
Clinical Implications	Supportive of using RRD for post-op management.

# WORKSHEET FOR CLINICAL TRIALS

**Title: Comparison of removable rigid dressings (RRD) and bandages in prosthetic management of patients with BKA**

**Authors: Mueller M**

**Journal & Date: Physical Therapy. 1982. 1438-1441**

Purpose of study	To determine if the removable rigid dressing is more effective in preprosthetic management than the conventional elastic bandaging
Design of study, score on Pedro rating scale	Pseudo randomised trial: allocated to groups in order of admission Measurers not blinded No intention to treat PEDro score: ?4-or 5
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	Subjects: 15 – (10 males, 5 females) – av 73 yrs (56-91) 11 with unilateral amputations, 4 with bilateral BKA (total of 16 limbs) Within 2 months of amputation Groups similar: age, stump volume
Intervention for experimental group Nature, Intensity	RRD: applied continuously except for toileting, wound care, pain
Control Group, what intervention did they receive?	Elastic bandage applied and education re application
Measures	Stump volume as per Katch and Katch Independent application “Total contact”: How measured?
Results <i>(Include 95% confidence intervals and consider CLINICAL significance of results)</i>	1 tailed ‘t’ test within group and between group comparison No SD RRD: all decreased volume compared to compressive bandage Independent application ??Can’t calculate CI??
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Worth investigating  BUT: small sample size, significant potential for biased results and large variability
Clinical Implications	Probably worth pursuing Follow-up on Katch and Katch volume measure?

## WORKSHEET FOR CLINICAL TRIALS

**Title:** Pressure measurements beneath BKA stump bandages: elastic bandaging, the Puddifoot dressing and a pneumatic bandaging technique compared.

**Authors:** PA Isherwood, J C Robertson, and A Rossi

**Journal & Date:** British J. of Surgery 1975

Purpose of study	
Design of study, score on Pedro rating scale	<b>Pilot study</b> (although not stated) – not RCT, therefore unable to score on PEDro.
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	21 BKA healed stumps of 17 patients (M and F) with “vascular, diabetic or neurological disease” No further information provided.
Intervention for experimental group Nature, Intensity	3 types of bandaging done (elastic, Puddifoot, and pneumatic (air filled PVC) to compare pressures ie no treatment done – pressure measures only.
Control Group, what intervention did they receive?	<b>No control group</b>
Measures	Pressures measured between skin and bandage (3 types) via sensors attached to sphygmomanometer.
Results <i>(Include 95% confidence intervals and consider CLINICAL significance of results)</i>	Elastic: Uneven and high pressures Puddifoot: pressures low Pneumatic: More therapeutic higher and even pressures
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Pneumatic bandaging exerts an even and high enough pressure to have therapeutic value. Elastic bandaging (Rayolast) is potentially dangerous; the Puddifoot exerts too low a pressure for moulding.
Clinical Implications	(Authors’ conclusion): Pneumatic bandaging is safe and worthy of further clinical trial. <b>Unable to draw any from this study.</b>

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(To be completed for each article reviewed. Cut and paste additional worksheets as needed)

## WORKSHEET FOR CLINICAL TRIALS

**Title: An innovative removable rigid dressing technique for below –the-knee amputation.**

**Read by Niki Shelton**

**Authors: Y Wu, RD Keagy, HJ Krick, JS Stratigos, HB Betts**

**Journal & Date: The Journal of Bone and Joint Surgery, 1979, vol. 61-A, NO. 5, pp. 724 – 729.**

Purpose of study	To evaluate the effectiveness of a rigid removable dressing (RRD) in the below knee amputee
Design of study, score on Pedro rating scale	Subjects: prospective, consecutive patients with BKA Controls: retrospective analysis of 30 randomly selected patients who underwent BKA in the last 11 years.  Pedro scale: <b>1/10</b>
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	Inclusion/exclusion criteria not specified. Patients recruited from a medical center in Chicago. N = 49 Mean age: 60.38 (range: 44-89)  <i>Subjects:</i> - N = 19 men (21 BKA's) - Mean age 63.5 years (range 44-89) - Indications for amputation: arteriosclerotic disease (44.4%), diabetic gangrene (33.3%), osteomyelitis (16.7%), burn (5.5%). <i>Controls:</i> - N = 30 - mean age 58.4 years (range 44-81) This group is similar in age and diagnosis to our patients.
Intervention for experimental group Nature, Intensity	<b>Post-op or when 1<sup>st</sup> above knee cast is removed post-op:</b> Application of a 3 ply stump sock, followed by application of RRD (consisting of below knee plaster cast, suspended by a stockinette held in place by a

	<p>supracondylar plastic cuff).  10-14 days post-op: graded weight-bearing exercises.  Dosage: <b>RRD worn continuously</b>, except for periodic stump observation, hygiene procedures &amp; prosthesis use.  The plaster cast is changed as stump shrinks (usually a total of approx. 4 casts per admission).</p>
Control Group, what intervention did they receive?	<p><b>Conventional soft-dressing</b> of stump, followed by elastic bandaging.  Timing of weight-bearing not mentioned.</p>
Measures	<p>Healing time (interval between amputation and ordering of a temporary prosthesis).  Rehab. time (time between amputation and discharge, ambulating with a temporary prosthesis).</p>
Results Include 95% confidence intervals and consider CLINICAL significance of results	<p><b>Healing time (average, (range)):</b>  <b>Control: 109.5 days, (44-372)</b>  <b>Subjects: 46.2 days (14 – 158)</b></p> <p><b>Duration of rehab (average)</b>  <b>Control: 191.4 days</b>  <b>Subjects: 101.8 days</b>  No further data available to facilitate analysis.</p>
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	<p><b>Results were biased by multiple factors.</b>  <b>Insufficient data was available for analysis.</b>  <b>Therefore the results must be treated with great caution.</b></p>
Clinical Implications	<p>A quality RCT is needed.</p>

## WORKSHEET FOR CLINICAL TRIALS

**Title: A randomised trial of rigid stump dressing following trans-tibial amputation for peripheral arterial insufficiency.**

**Authors: Woodburn, K.R. Sockalingham, H. Gilmore, M.E. Condie and Ruckley, C.V.**

**Journal & Date: Prosthetics and Orthotics International 2004**

Purpose of study	To determine the effect of a above applied at time of amp. On days to casting and wound infection
Design of study, score on Pedro rating scale	RCT Not rated on Pedro yet. Our <b>rating 3/11</b> . Points for random allocation, intention to treat, between group comparison for one key outcome
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	154 pts from 7 centres between March 1997 and Dec 1999.. F=40;M=114. 78 intervention; 76 control. Transtibial amputees for peripheral artery insufficiency. Nil other info. Unable to compare due to insufficient info.
Intervention for experimental group Nature, Intensity	Intervention: <b>Rigid dressing applied in theatre.</b> Removed and checked after 7 days and reapplied for 14 days. Standard protocol for management (includes nursing and physio)
Control Group, what intervention did they receive?	Control: <b>Soft dressing</b> and standard protocol for treatment.
Measures	Incidence of infection, days after op to casting, post trial questionnaire
Results Include 95% confidence intervals and consider CLINICAL significance of results	<b>No difference in incidence of infection.</b> <b>Median reduction of 6 days to cast for prosthesis in rigid dressing group but not statistically significant.</b> <b>23/28 responded to questionnaire. 64% of surgeons and all PT's and nurses favoured rigid dressings as it protected the stump. Negative- Heaviness, unable to see wound and difficult to apply due to training.</b>
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	<b>There is a trend toward support for rigid dressing but need bigger subject numbers for power.</b>
Clinical Implications	Further research required. Still should be considered.

## WORKSHEET FOR CLINICAL TRIALS

**Title: Healing of Open Stump Wounds after Vascular Below-Knee Amputation: Plaster Cast Socket with Silicone Sleeve vs Elastic Compression.**

**Authors: Vigier et al**

**Journal & Date: Arch Phys med rehab 1999; 80: 1327-30.**

(Pat and Clare)

Purpose of study	To assess effect of plaster cast socket on the healing of open wounds and on temporary prosthesis fitting after BKA because of arterial occlusive disease.
Design of study, score on Pedro rating scale	RCT <b>Pedro 6/10</b>
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	<p><b>Subjects:</b> 28 subjects in each of the 2 groups. Average age 65 years. University Hospital Rehab Centre.</p> <p><b>Inclusion:</b> Recent BKA (last 3/12). BKA because of arterial occlusive disease. Initially open stump. Wound surface 8-24 cm<sup>2</sup> TcPO<sub>2</sub> more than 35mmHg.</p> <p><b>Exclusion:</b> Use of artificial limbs contraindicated because of general health problems. Ischaemia of non-amputated limb.</p>
Intervention for experimental group Nature, Intensity	Supracondylar-type POP cast socket fitted on stump knee at 10 degrees flexion with silicone sleeve <b>starting at 30 mins a day increased to 5 hours a day</b> , compression bandages when cast not in place plus same rehab program as control group (see below).
Control Group, what intervention did they receive?	3 layers of <b>elastic compression bandages</b> , only removed for dressing changes. <b>Rehab program:</b> Walking with ischial WB prosthesis. When wound healed sufficiently: walking with temporary contact socket mounted on endo-skeletal prosthesis. Cardiovascular training using arm ergometer. 2 x daily, 5 x week.

Measures	<ol style="list-style-type: none"> <li>1. Time required for stump healing.</li> <li>2. Length of time between amputation and ability to walk wearing contact socket.</li> <li>3. Length of hospital stay (LOS).</li> </ol>
Results Include 95% confidence intervals and consider CLINICAL significance of results	<ol style="list-style-type: none"> <li>1. <b>Intervention group shorter average healing time 71.2 days vs. 96.8 days control (95% CI -32, 0) ∴ clinically significant.</b></li> <li>2. Intervention group shorter average time to walking with contact socket, 63.5 days vs. 73.3 days for control group (95% CI -18, +5) ∴ not clinically significant.</li> <li>3. <b>Intervention group shorter average LOS 99.8 days vs. 129.9 days control (95% CI -49, -1) ∴ clinically significant.</b></li> </ol>
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	<b>Plaster cast accelerates healing and reduces hospital stay. - ??but only 5 hours per day – surprising.....</b>
Clinical Implications	<p>Risk of stump ischaemia should be removed by measuring TcPO<sub>2</sub> level before deciding to apply cast.</p> <p>? if surgeons at BLH utilise open stump wound technique.</p> <p>? if our amputees have no ischaemic changes in non-amputated leg.</p>

## WORKSHEET FOR CLINICAL TRIALS

**Title:** The healing of Below Knee Amputations

**Authors:** Baker et al, 1977

**Journal & Date:** The American Journal of surgery, 133, page 716-8

Reviewed by Wendy Robinson and Jennifer Ho

Purpose of study	<i>Compared soft dressings to RRD on healing BKA Also had a 'subgroup' which looked at LOS and time to rehab</i>
Design of study, score on Pedro rating scale	<i>RCT, 2/10 – no stats or b/w group comparisons, ? dropouts, no intention to treat, no blinding of anyone</i>
Subjects, inclusion,	<i>51 patients with BKA – soft dressings (24)</i>

exclusion criteria Details, age, source. Is this group similar to your clients?	- RRD (27) Yes, patients are similar although little details are given??
Intervention for experimental group Nature, Intensity	Prosthetist applied <b>POP rigid dressing</b> with relief over patella and tibia. Pylon attached > 2-3 weeks 'if rehabilitable'. 7-8 weeks rehab/gait retraining
Control Group, what intervention did they receive?	<b>Soft dressings, compressive bandage +/- POP backslab</b> for knee extension
Measures	Primary healing ie. 14-21 days post op at R/o sutures Secondary healing ie. Any time after that Revision of amputation level Subgroup – time to rehab (??bias++) - LOS (??bias++)
Results (Include 95% confidence intervals and consider CLINICAL significance of results)	No stats, so unable to calculate confidence intervals <b>Primary healing – RRD average 7 days (6 patients)</b> <b>- soft dressings 14 days (6 patients)</b> No other significant differences <b>Subgroup – shorter time to rehab and dec. LOS in RRD group, but no stats given</b>
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Poor quality study, however, faster time to primary healing, reduced LOS and faster time to rehab with RRDs
Clinical Implications	Weak evidence to support use of RRD's <ul style="list-style-type: none"> <li>• Immobilisation of wound</li> <li>• Oedema control</li> </ul>

## WORKSHEET FOR CLINICAL TRIALS

**Title: A conservative approach to lower limb amputations: Review of 240 amputees with a trial of rigid dressing**

**Authors: Jones,R; Burniston,G**

**Journal & Date: Medical Journal of Australia October 1970**

Purpose of study	Review of 240 LL amputees to assess the efficiency of lower limb prosthetic rehabilitation
Design of study, score	Descriptive study. No control group. Unable to rate on

on Pedro rating scale	Pedro
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	240 amputees surveyed between ages of 30-90years. 70% between 60 and 80 yrs. Male/female ratio was 2:1. All amputations for circulatory problems. (None traumatic)
Intervention for experimental group Nature, Intensity	Trial of rigid dressings for amputees presenting within a 14month period. No other details provided
Control Group, what intervention did they receive?	No control group
Measures	Of 26BKA's, 21 received rigid dressings. Knee joint able to be preserved in 15 cases. 635 of BKA's were fitted with prosthesis and 87% were independent in ADL
Results – small ample size – didn't generate enough power to detect significant diff	Rigid dressing thought to aid wound healing, reduce postop oedema, protect the wound from trauma and reduce movement at skin edges
Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	Rigid dressings thought to be more successful in younger patients due to better circulation. Unable to draw conclusions from this study as poor quality and not RCT
Clinical Implications	More good quality trials required

## 9. Summary of Clinical Implications Derived from Articles

*(Please address general implications, rather than those specific to your unit, so others can use this info)*

- Soft dressings are the worst post op management for below knee amputees and that is the current management at Bankstown/Lidcombe hospital.
- It appears that rigid dressings accelerate wound healing but current evidence is not particularly strong due to lack of quality of trials.
- Volume decrease/stump stabilisation is better with rigid dressings compared with soft dressings/shrinkers.
- Time to initial rehab is shorter with rigid dressings compared with soft dressings.
- Intervention v. easy to administer with little expense

**10. Auto alert done: Yes**

*(See attached sheet for instructions on how to set up an auto alert – try to list more than one email contact for the auto alert in case of staff resignations)*

**Physiotherapist's responsible: Wendy Robinson**

**Hospital responsible: Bankstown hospital**

**Contact details and email address: email –**

**[wendy.robinson@swsahs.nsw.gov.au](mailto:wendy.robinson@swsahs.nsw.gov.au)**

**PH: 9722 7258**

**11. Date Summary was Completed:**

**19/4/2006**

**12. Reviewed by:**

**Date reviewed:**

*(Part A may be reviewed by a representative in Sydney University that is knowledgeable in this field of expertise)*

**Feedback given by reviewer:**

## **PART B – HOSPITAL SPECIFIC IMPLEMENTATION**

*(To be replicated by any hospital within SSWAHS as required – please cut and paste additional reviews)*

**Hospital: Bankstown/Lidcombe hospital**

**Date reviewed: 19/4/2006**

**1. Summary of Current Practice:**

Initial dressing is decided by wound CNC/vascular surgeons and secured with a crepe bandage. When transferred to rehab, a stump shrinker or stump bandages are applied ie. Soft dressings.

When the stump is not 'dog eared' then a temporary prosthesis is made by the amputee physio and the patient commences prosthetic training. When the stump volume is reasonably stable, then a definitive leg is cast and fitted. Patient discharge is decided when the patient is able to walk sufficiently to

manage at home (if able). Outpatient rehab is offered and prosthetic training continues

Average length of acute hospital stay is 2 weeks. Average length of rehab time is 4-6 weeks.

## **2. Does information suggest you change current practice in your unit?**

Yes, rigid dressings should be introduced as soon as possible post operatively.

## **3. Implementation Planning:**

### **a) Identify strategies that could be used to implement this evidence in your unit.**

Liaise with the vascular surgeons and wound CNC to hopefully get a rigid dressing applied in theatres over the drain. When the drain is removed at day 2 post op, the amputee physio applies a rigid removable dressing, and the RRD remains in situ 23.5 hours per day.

### **b) Identify barriers to change in your unit and possible ways to overcome these barriers**

#### **Non compliance with vascular surgeons and wound CNC**

Liaise, educate.

Refer to the Dept of health guidelines for amputee management that also promotes RRD as best current practice in post-op wound care.

#### **Non compliance with patient to wear the RRD at all times**

Education of patient and family. Ensure patient comfort as much as possible. Update amputee booklet regarding RRD.

#### **Nursing staff not complying with RRD or taking too long to do the dressing and reapply the RRD**

Education of staff, liaise with wound CNC to re-inforce importance of RRD. Assist as able with don/doff of cast.

## **4. What strategies will you use to review how effectively changes have been implemented in your unit?**

Review the number of amputees that receive RRD in the next year.

## **PART C – REVIEW**

*(To be completed at least annually after initial EBP process finished. Please cut and paste for additional reviews)*

### **1. Date of review:**

***Physiotherapist's responsible:***

***Hospital responsible:***

**Contact details and email address:**

**2. New evidence obtained**

*(List additional references that are relevant to the original EBP question)*

**3. Please attach worksheets of relevant information:**

*(To be completed for each article reviewed. Cut and paste additional worksheets as needed)*

**WORKSHEET FOR SYSTEMATIC REVIEWS**

**Title:**

**Authors:**

**Journal & Date:**

Purpose of Systematic review	
Methods, how did they find the relevant trials? <i>(Include databases searched, search terms and selection criteria's if known)</i>	
Methods, how did they assess their individual validity?	
Results, what were the results, were they consistent from study to study?	
Do these results apply to your patient group?	

Conclusion	
Clinical Implications	

*(To be completed for each article reviewed. Cut and paste additional worksheets as needed)*

## **WORKSHEET FOR CLINICAL TRIALS**

**Title:**

**Authors:**

**Journal & Date:**

Purpose of study	
Design of study, score on Pedro rating scale	
Subjects, inclusion, exclusion criteria Details, age, source. Is this group similar to your clients?	
Intervention for experimental group Nature, Intensity	
Control Group, what intervention did they receive?	
Measures	
Results <i>(Include 95% confidence intervals and consider CLINICAL significance of results)</i>	

Conclusion Is the intervention worthwhile, consider the size of the effect and the intensity of the intervention	
Clinical Implications	

**4. Does this new information suggest you change current practice in your unit?**