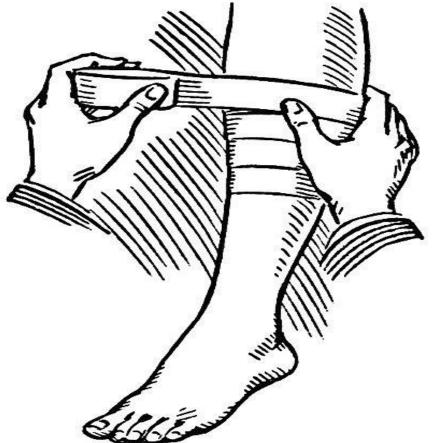
### \$ The Cost of a Complex Wound \$



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Angela Crespin Wound Care Specialist Waikanae Health Presentation for the Enrolled Nurse Conference 2016

## Disclaimer

- The content of this presentation reflects the choice of Algivon Alginate with Activon Manuka Honey as the method of wound healing.
- A surgical option was offered to Mrs M but she opted for Primary Health Care.
- Treatment began with all three parties involved agreeing on a care plan. (GP, Nurse, Patient)
- My affiliation with Advancis & W M Bamford is a purely professional choice of products.
- The information given in this presentation is on evidence based practice.

### Meet Mrs M 3rd March 2015

68 year old lady during a visit to the local supermarket had an accident with the driver of a fork lift truck in the carpark.

Mrs M arrived in the surgery via Wellington Free ambulance with a large open V shaped wound caused by the fork lift blade on her right shin.

The bleeding wound was assessed by our emergency clinic doctor and irrigated with saline and an attempt to realign the skin flap, unfortunately this was not possible due to formation of a large haematoma under the flap. A Silflex dressing was applied to secure the flap and covered with adaptic, combine dressing and a compression bandage. Pt advised to elevate leg and report any excessive bleeding, review again in 24 hours

Immunisation required, 1<sup>st</sup> Tetanus status required and administered

### Patient History

- Diabetes Mellitus Type 2
- Atrial Fibrillation
- Warfarin Monitoring
- Congestive Heart Failure
- Churg-Strauss (vasculitis)
- Obesity
- Hypertension
- Never smoked tobacco

- Medications
- Marevan
- Digoxin
- Metoprolol
- Azathioprine
- Losartan
- 🕨 Insulin, Isophane
- Frusemide
- Ferrograd
- Omeprazole

### 24 Hour Review

- Wound haemostatic, the skin flap had now contracted and curled, flap gently lifted for irrigation washout with normal saline of the dried blood in the wound, unable to completely realign the skin. No visible signs of infection
- Reviewed by the doctor
- Silflex applied as the primary dressing with adaptic, interpose lite and combine dressing. Crepe compression bandage applied from toes to knee. Good pedal pulse present.
- Review in 2 days, patient advised to keep dressings dry and rest with elevation of the leg.

### 48 Hour Review

6<sup>th</sup> March 2015

- Review after 2 days, much less oedema although still inflamed due to deep laceration. Cleaned with normal saline.
- Reviewed by the Doctor and script for Flucloxacillin 500mg 2 caps TDS prescribed.
- Algivon Alginate applied as the primary dressing, adaptic with a combine dressing to protect & a Yellow line comfi-fast from toes to knee.
- Pt advised on keeping area dry and elevate as much as possible review again Wednesday

### Cellulitis Pathway Day 1

Wound Clinic Review 9<sup>th</sup> March 2015 Severe signs of infection today and not responding to oral AB's, Wound bed cleaned with normal saline and reviewed by the pts doctor. Plan to have a course of IV Cephazolin. Algivon Alginate applied as the primary dressing with adaptic and combine dressing to protect.

Commencement on the Cellulitis pathway as per prescribed by Dr. RN notes:- IV sited in Right forearm Probenecid 500mg ii given prior to IV antibiotics at 1430hrs Cephazolin 2g drawn up with 10mls sterile water and inserted into a 100ml bag of sodium chloride, administered through giving set over 20minutes Crepe bandage applied to protect IV site before going home

## Cellulitis Pathway Day 2

- 10<sup>th</sup> March 2015
- Patient presents for second dose of IV antibiotics on the cellulitis pathway with RN
- IV in right forearm flushed and patent
- Probenecid 500mg 2 tabs given prior to IV antibiotics at 1040hrs
- Cephazolin 2g drawn up with 10mls of sterile water and inserted into 100ml bag od sodium chloride. Administered through giving set over 20 minute period.

### Wound Clinic & Cellulitis Pathway Day 3

- 11<sup>th</sup> March 2015
- Review to large skin tear on lower right leg, cleaned with normal saline, less inflammation in the wound and surrounding tissue, infection responding well to Cephazolin, slough present on the base of wound.
- Reviewed by doctor
- Algivon alginate applied as the primary dressing with adaptic and combine dressing pad. Patient agreed & signed for consent of photos and use in education and or a case study.
- RN administered 3<sup>rd</sup> dose of IV antibiotics, IV in R forearm flushed, some inflammation observed therefore re sited in Left forearm. Probenecid 500mg 2 tabs given 1040hrs, Cephazolin 2g drawn up with 10mls sterile water and injected at 1ml a minute over 10 minutes. Venflon left in situ in case of further AB's required



### 13 March 2015

#### Wound Clinic Review

- Wound cleaned with normal saline
- Slough debrided from wound bed
- Inflammation and infection responding well to antibiotics
- Review by patients own GP, Oral Flucloxacillin prescribed
- Cannula removed today from left arm, continue with oral AB's
- Algivon Alginate applied as primary dressing, adaptic, combine pad to protect and yellow comfi-fast from toes to knee
- Review again in 3 days

### 16<sup>th</sup> March 2015

Wound clinic Review

- Cleaned with normal saline
- Slough debrided from wound bed
- Small necrotic area of tissue still to lift from the area of bleed
- Healthy granulating tissue forming
- Reviewed by Duty doctor oral flucloxacillin to continue
- Algivon Alginate, adaptic and combine dressing with yellow tubi-fast from toes to knee
- Review again in 2 days





### Comparison over 7 days of treatment



## Decrease in slough over 2 days using Algivon Alginate



## 15<sup>th</sup> April 2015

Wound clinic review Tetanus/dip 2<sup>nd</sup> dose given as per imms primary dose catch up schedule Wound bed over 50% granulating tissue with some slough present. Cleaned with normal saline and reviewed by the doctor. Algivon Alginate applied with adaptic and dry dressing to protect,

# Healthy granulating wound within seven days using Algivon Alginate.



## 17<sup>th</sup> April 2015

Wound clinic review

Wound bed healthy and granulating well with much less slough present.

Reviewed by doctor, improving with good progress

Dressing plan to change to Actilite Manuka Honey dressing, adaptic and combine dressing to protect. Review Monday

## 20<sup>th</sup> April 2015

Wound Clinic review

Wound has made great progress over the weekend, cleaned with normal saline.

Reviewed by the doctor, wound more shallow, smaller and nil inflammation,

Actilite honey applied with adaptic and combine dressing to protect, plan to review twice weekly, review again Friday.

## 6<sup>th</sup> May 2015



The Wound is progressing well With the continuation of cleaning and the application of Actilite Manuka Honey with a dry dressing.

### So what is the cost of this wound?





## Actual cost of this wound

ltem	Patient cost	ACC Claim	Dr ACC Claim	ACC MB3 Claim	Nurse ACC Claim	Compass Health
WFA	nil	\$200				
Initial visit	\$47		\$38.79	\$93.45	nil	nil
24 wound reviews	\$251		\$853.38	\$893.70	\$398.88	nil
Cellulitis Pathway						\$372
Totals	\$298	\$200	\$892.17	\$992.15	\$398.88	\$372

### Comparison

Estimates received through HVHDHB	
Transport to ED Via Wellington Free Ambulance	\$600
Initial ED Consult	\$300
General Surgery	\$4700
Anaesthesia	\$4000
5 Day inpatient stay @ an average cost \$541 per day	\$2705
Follow up dressing clinic \$280 x 2	\$560

### Primary Health V Secondary Care 12 weeks V 4 weeks (estimated)

- Patient cost \$ 298
- ACC claims \$2483
- Compass
- \$ 372
- Transport
- ED consult
- Surgery
- Anaesthesia
- Inpatient

\$4700 \$4000 \$2705

\$ 300

600

\$

Dressing Clinic\$ 560

#### ► Total = \$3153

### ► Total = \$12,865

### The cost and the savings

Whilst the actual cost can be proven the comparison can only be estimated.

The five day stay is based on an average inpatient stay for a skin graft.

The surgery and anaesthesia cost are also estimated at the lower end of the scale and could be considerably higher.

\$9712

So whilst ACC would be charged for the cost of this wound whether it be treated by either party it can be estimated that treating in Primary Health we saved

### References

Permission from the patient Mrs M for accepting to be a part of my case study for educational purposes.

W M Bamford & Co Ltd <u>www.bamford.co.nz</u> for their cost effective dressings including the Algivon Manuka Honey and Silflex.

Information received regarding the costings from

- Hutt Valley DHB, estimated comparison costs
- ACC, actual costs
- Waikanae Health, actual Costs
- Mrs M, actual costs
- Wellington Free Ambulance

## Thank you to the Bees

& thank you for listening. Any questions?

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