



## Clinical Question

- Can patients uncover and wet stitches in the first 48hrs after minor skin procedures without increasing the incidence of infection?



## Design

- Prospective Randomized Control Trial



## Participants and Recruitment

- 19 GPs from 4 different practices
- Data collection Oct 2004 - May 2005
- Consecutive patients presenting for minor skin excision
- Practice nurse responsible for recruitment & data collection



## Eligibility Criteria

### Inclusion

- Minor skin excision
- Diabetes, anaemia, PVD (recorded)

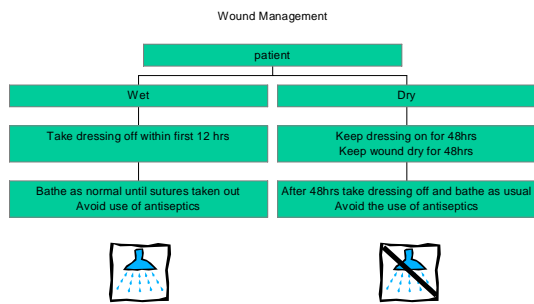
### Exclusion

- Face
- Oral/topical Abs
- Immunosuppressants
- Flap/two layer
- Lacerations
- Sebaceous cyst

## Surgical wound management protocol

- Skin prep normal saline
- Sterile technique – sterile gloves
- Suture material – nylon
- No antibiotics / topical antiseptics
- Dressing – melolin and tape
- ROS – back 10 days, other sites 7 days

## Intervention



## Clinical Outcome

- CDC definition of superficial surgical site infection – standardised surveillance criteria:
  1. Infection within 30 days
  2. a. Purulent discharge from wound or  
b. Doctor diagnoses infection or  
c. Doctor commences antibiotics
  3. Stitch abscess doesn't count as infection
- Rather vague – but 'Gold standard'

## Sample Size

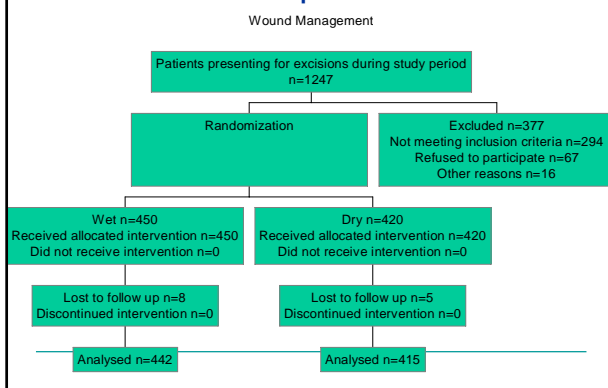
- Consulted biostatistician
- Based on pilot study infection rate 5%
- Increase in incidence of infection of 5% clinically significant
- Power 80%, Alpha 0.05 – equivalence test of proportions
- 357 patients in each group

## Randomisation

- Picking balls out of a bag



## Results – Participants



## Baseline data

	Wet (Intervention) n = 450	Dry (Control) n = 420	p-value
Mean (SD)* age [years]	55.9(√16.6)	56.5(√16.2)	0.58
Male patients (%)	249(55.3%)	208(49.5%)	0.08
Mean Days (SD) to removal of sutures	8.6(√2.2)	8.6(√2.2)	1
Presence of diabetes	9(2%)	14(3.3%)	0.2
History of other medical condition**	8(1.8%)	10(2.3%)	0.5
Treated with 1% lignocaine adrenaline	435(96.7%)	411(97.9%)	0.3
Excision of skin cancer	294(65%)	289(69%)	0.3
Excision at lower limb	112(25%)	106(25%)	1

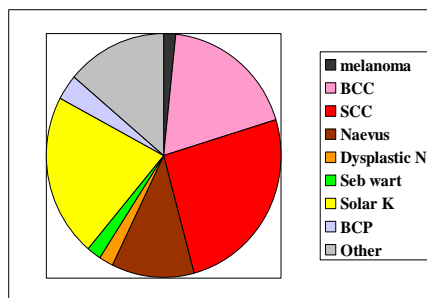
## Infection

- Wet (intervention) 8.4%
- Dry (control) 8.9%
- Overall 8.6%
  
- Incidences of infection in intervention group & control group significantly equivalent
  
- $P < 0.05$
  
- 95% confidence intervals 6.8, 10.5

## Risk factors for infection

- Multivariate analysis – independent predictors of infection
  
- Lower legs and feet ( $p=0.009$ )
- Thighs ( $p=0.005$ )
- BCC ( $p=0.006$ )
- SCC ( $p=0.002$ )
- Diabetes ( $p < 0.001$ )

## What did we excise?



## Limitations

- Large number of variables
- Inadequate data collection
- Diagnosis of infection subjective
- Compliance difficult to measure
- Generalisability to temperate climate?

## Conclusion

- Patients can uncover and wet sutures in first 48hrs after minor skin excisions without increasing incidence of infection



## Publication

- Where???
- BMJ





## Process/Logistics

- PHCRED grant obtained as group
- I was employed as principal researcher
- GPs preferred practice nurses to be paid for their time
- Delegation of tasks
- Design and methods developed as group

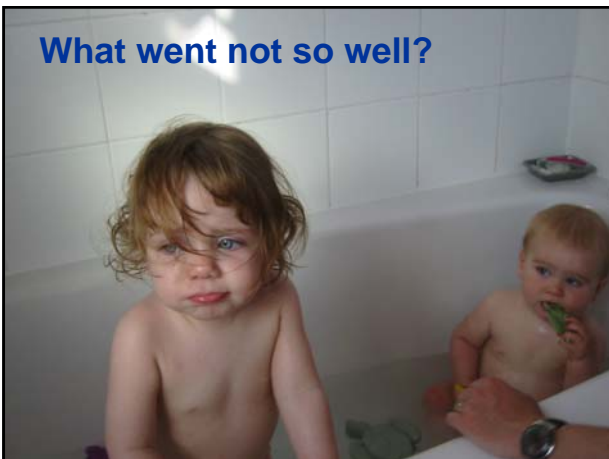
## What went well



## What went well

- Trial 'owned' by GPs
- Because trial initiated by themselves, GPs enthusiastic, didn't have to 'sell' it
- Made welcome in practices, able to work with practice nurses
- Recruitment easy
- Quality of data collection generally very good
- PHCRED grant available quickly

## What went not so well?



## What went not so well

- Not my choice of project
- Over-ambitious
- Difficult to delegate work
- Difficult to sell rigor to GPs
- Geographically compromised – more input at beginning



## Overall

- Successful project
- GPs and practice nurses pleasure to work with
- Practice nurses excellent researchers
- GPs have to 'own' project to be successful

## The Future?

- ? New research project
- Infrastructure to study intervention to decrease infection rate



## Thank you!

- AAAGP
- Supervisors – Petra Buettner, Bev Raasch
- PHCRED JCU Townsville
- GPs in Mackay

