

## The first UK experience with Posthorax® vest - Prophylactic use results in reduced sternal wound complications following sternotomy.



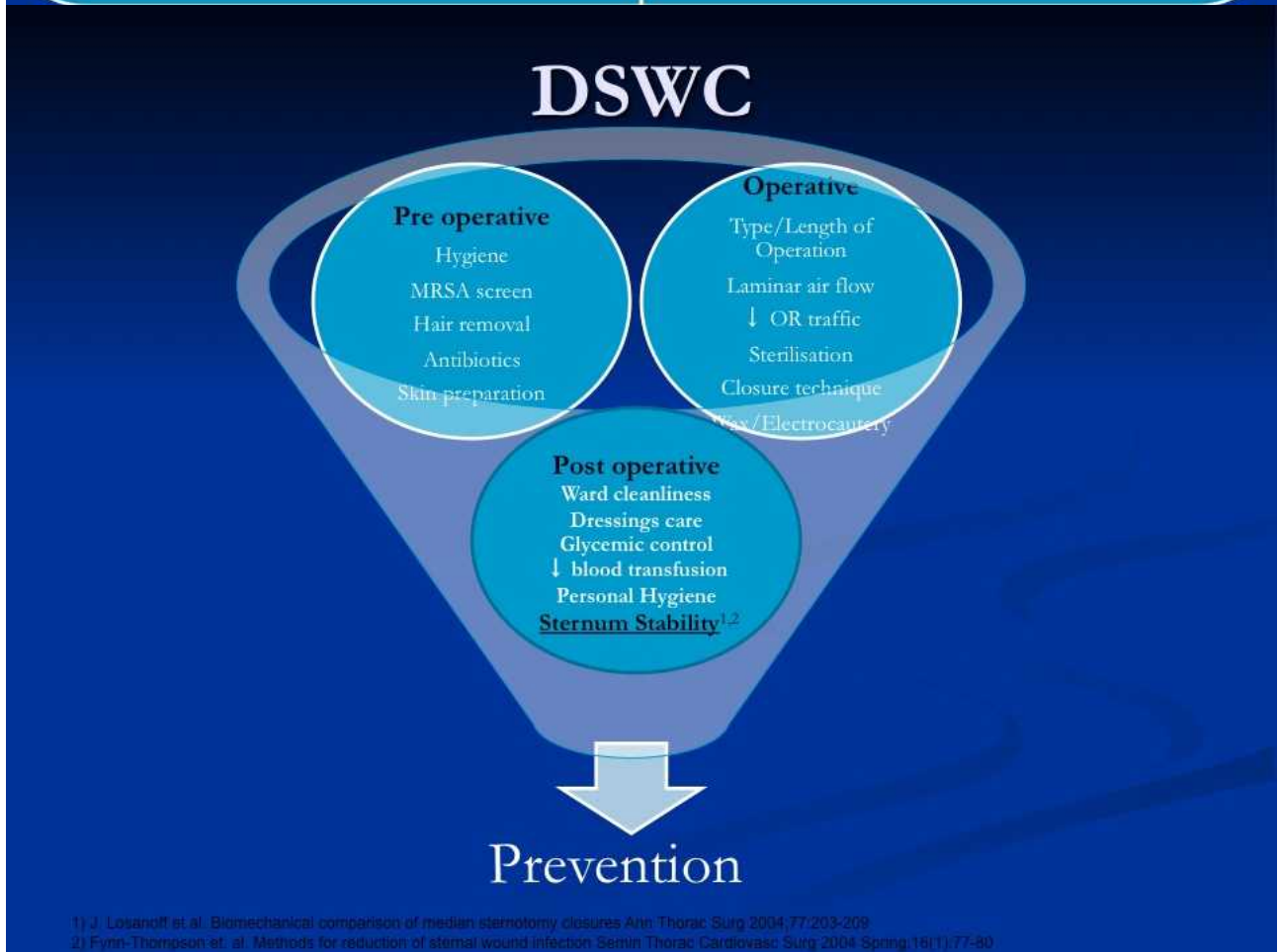
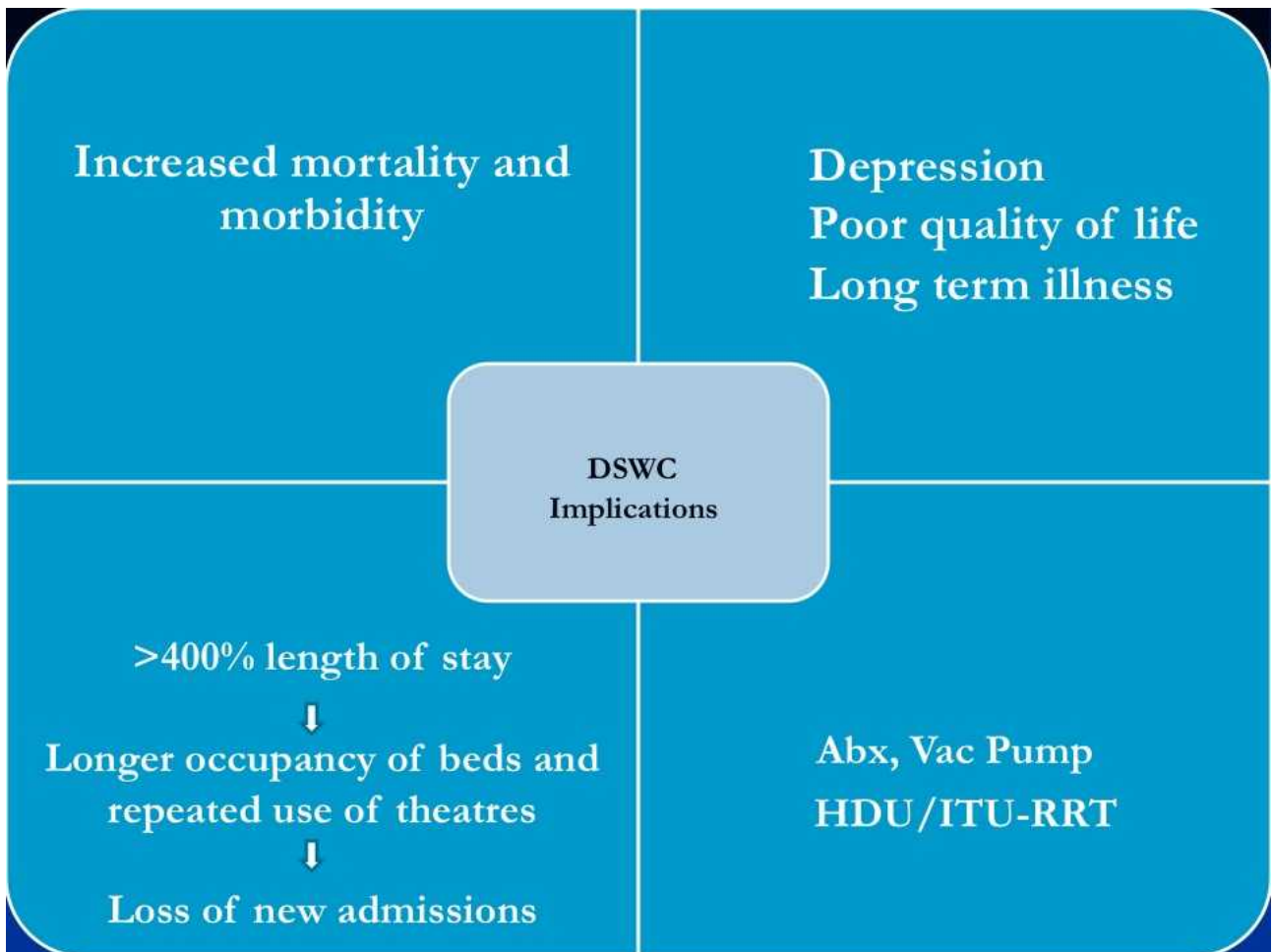
N. Nikolaidis, I. Manoly, M. Kaarne,  
G. Tsang, S. Ohri, S. Livesey, C. Barlow

Wessex Cardiac Centre

SCTS ANNUAL MEETING & CT FORUM – BRIGHTON – 17<sup>TH</sup> – 19<sup>TH</sup> MARCH 2013

## Deep Sternal Wound Complication DSWC

- Sternal instability
- Drainage
- ± Fever / Septic Shock



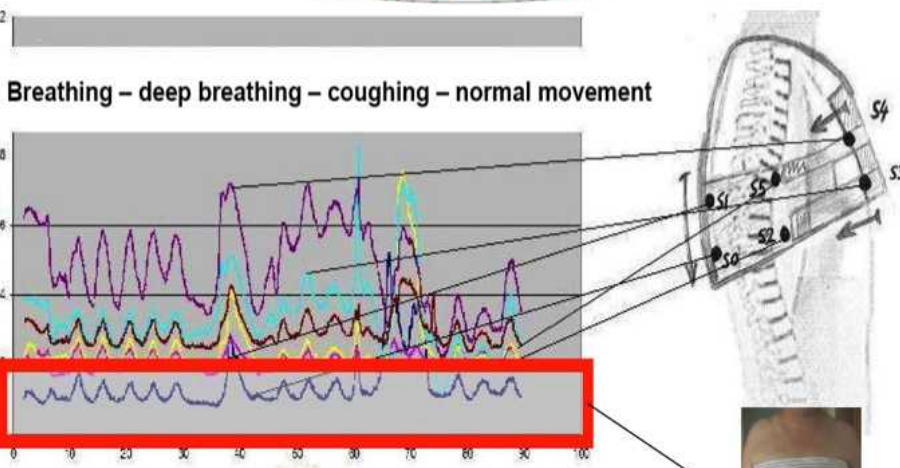
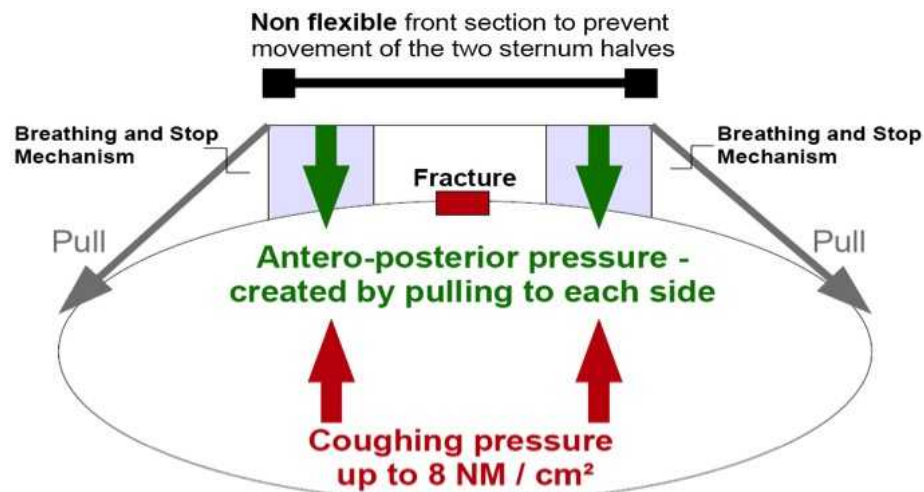
# POSTHORAX®



- The Posthorax Vest is a **post-operative jacket** for patients who have undergone heart surgery via sternotomy
- Provides support for the chest without restricting breathing

## Function of Posthorax®

- Anteroposterior stabilization of the sternum (2 front cushions)
- Different sizes
- Ergonomical fit for males and females
- Lateral straps for optimum fit and stop mechanism which allows normal breathing but stops hyperextension of the thorax
- Individual sizing at the shoulder straps to prevent vertical malposition



## Function of Posthorax®

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## Selection process/ Data collection

- Pre operative decision (clinic or in hospital)
- Documentation in the notes (suitability, reason, size)
- Application by trained staff
- Ideally, application immediately after extubation
- Recommended use for up to 6 weeks
- 1<sup>st</sup> year Prospective collection
- 2<sup>nd</sup> year Retrospective collection

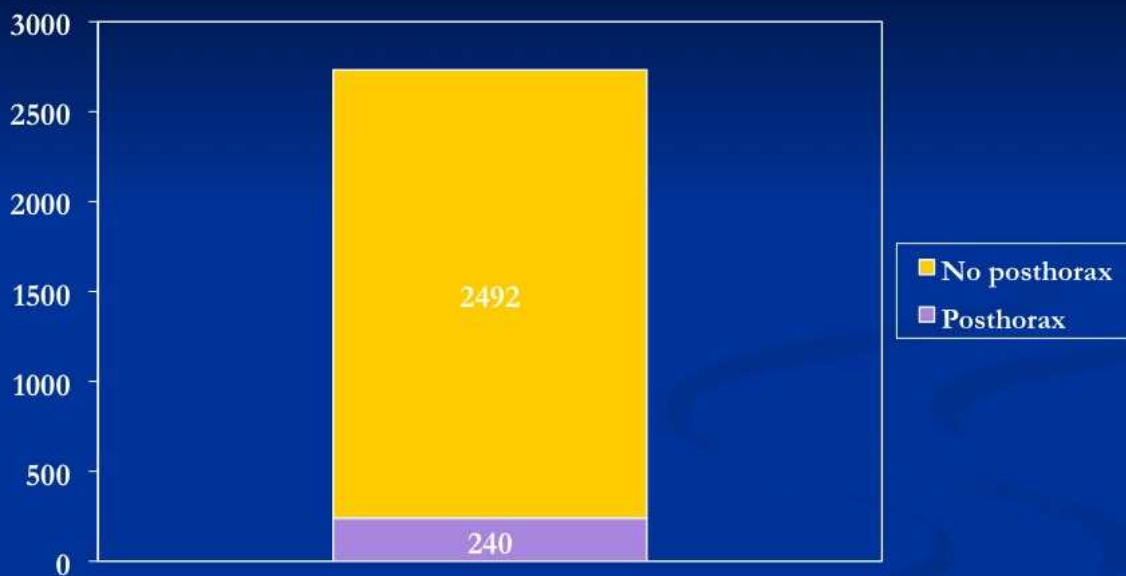
## Indications (prophylactic use)

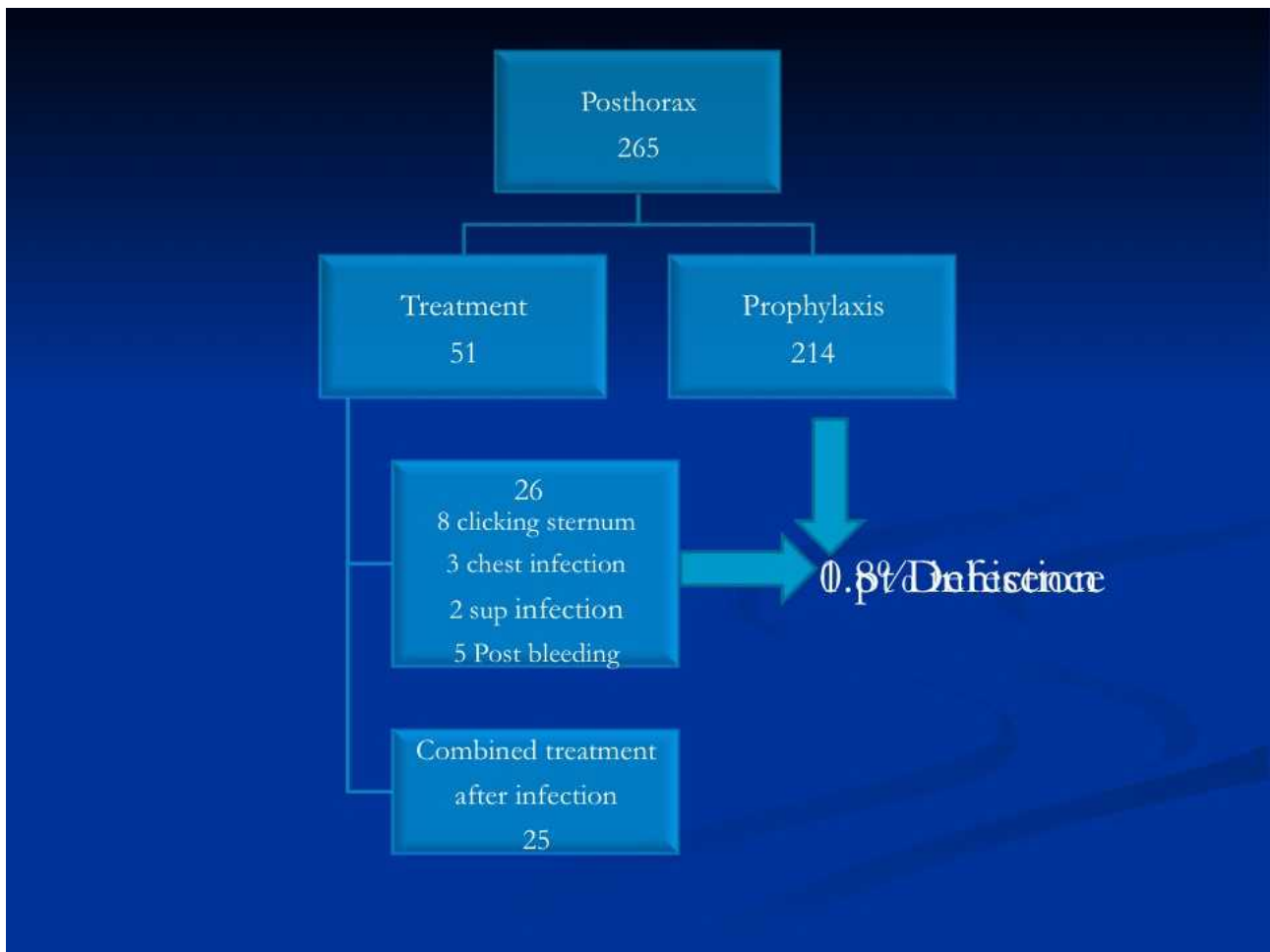
- High BMI (>30)
- Diabetes
- Steroids
- Reduced Lung Function
- Re operation
- Severe osteoporosis (Intraoperative finding)

## Indications (therapeutic use)

- Clicky sternum
- Severe Cough/ chest infection
- Superficial infection
- Delirium/agitation
- DSWC (on Vac Pump or post rewiring)

## Posthorax vs Non Posthorax





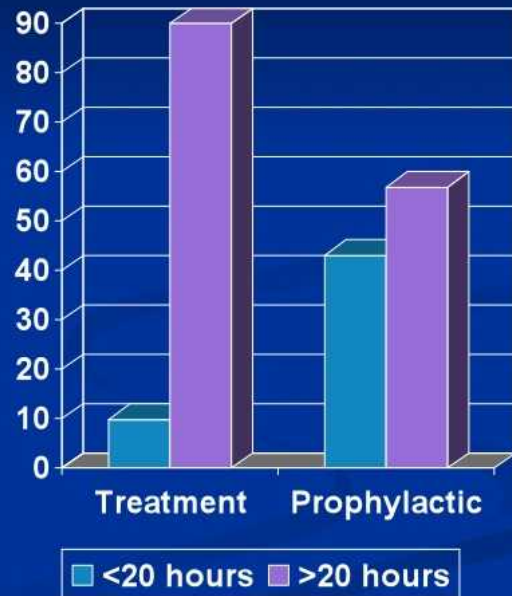
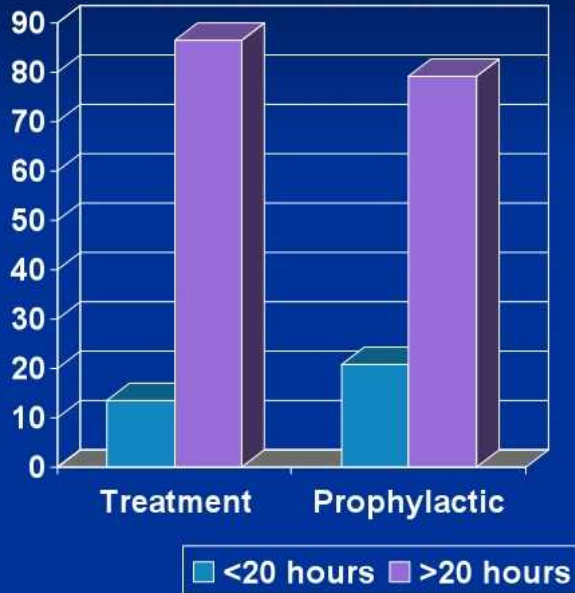
## Risk Factors

	Non Postthorax group	Postthorax group	P value
Age	69.3±11.7	69.2±11.4	p=ns
BMI	27.8±4.9	31.3±5.9	<b>p&lt;0.001</b>
COPD	12%	17.3%	<b>p=0.03</b>
Diabetes	19.4%	25.6%	<b>p=0.05</b>
Previous operation	11.5%	16.3%	p=0.07
Logistic EuroSCORE	8.6%	8.1%	p=ns
X clamp time	68.4±32.2	67.7±32.9	p=ns
CPB time	105.1±46.3	101.2±42	p=ns
Urgency	38.8%	32.2%	p=ns

# Time spent wearing jacket

Hospital

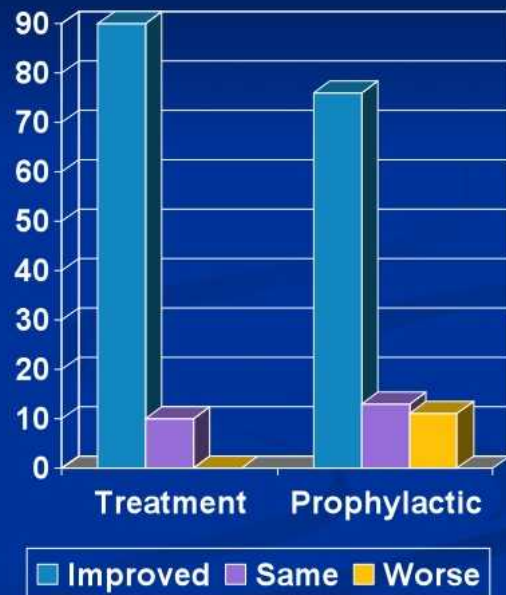
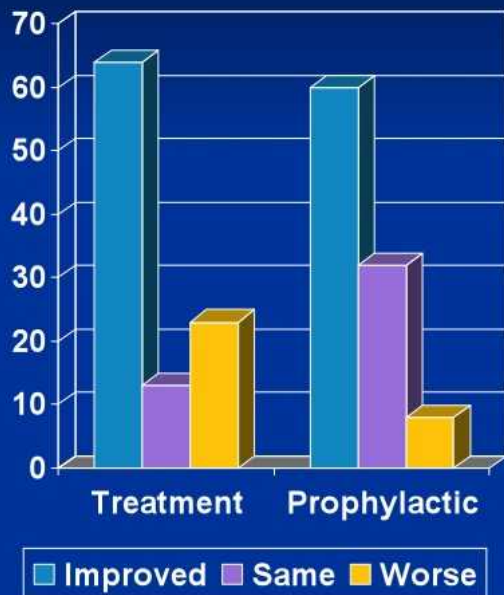
Follow up



# Patients pain with jacket fitted

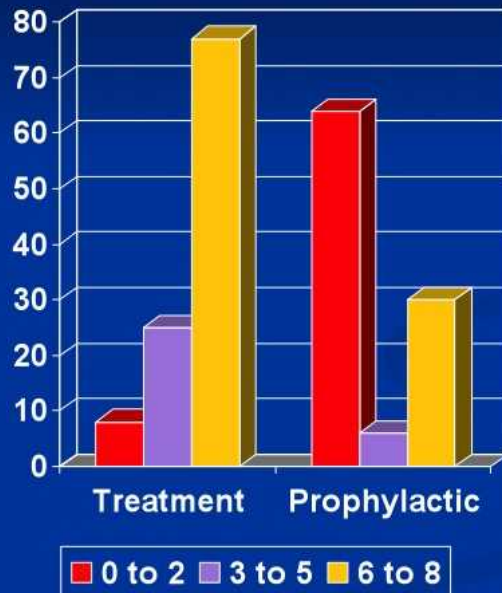
Hospital

Follow up

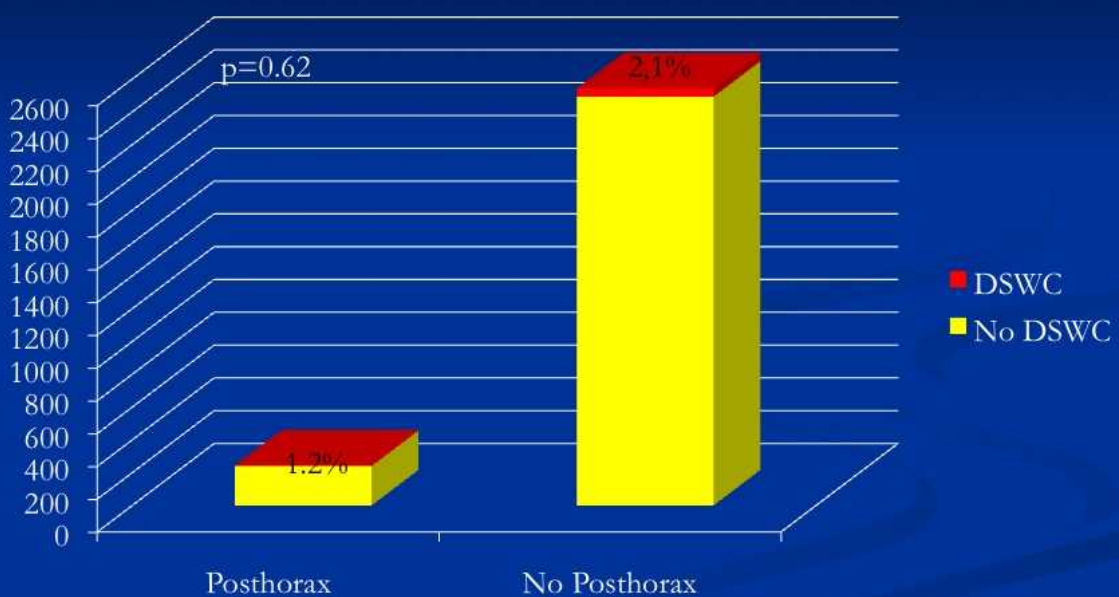




# Weeks wearing jacket



# DSWC per Group



# Conclusion

- Reduction of infection incidence
- Contributes to faster recovery
- Reassurance for the patient
- Cost effective

