BẠC VÀ SỰ LÀNH VẾT THƯƠNG

BS NGUYỄN THỊ NGỌC NGÀ
KHOA BỎNG- CTCH

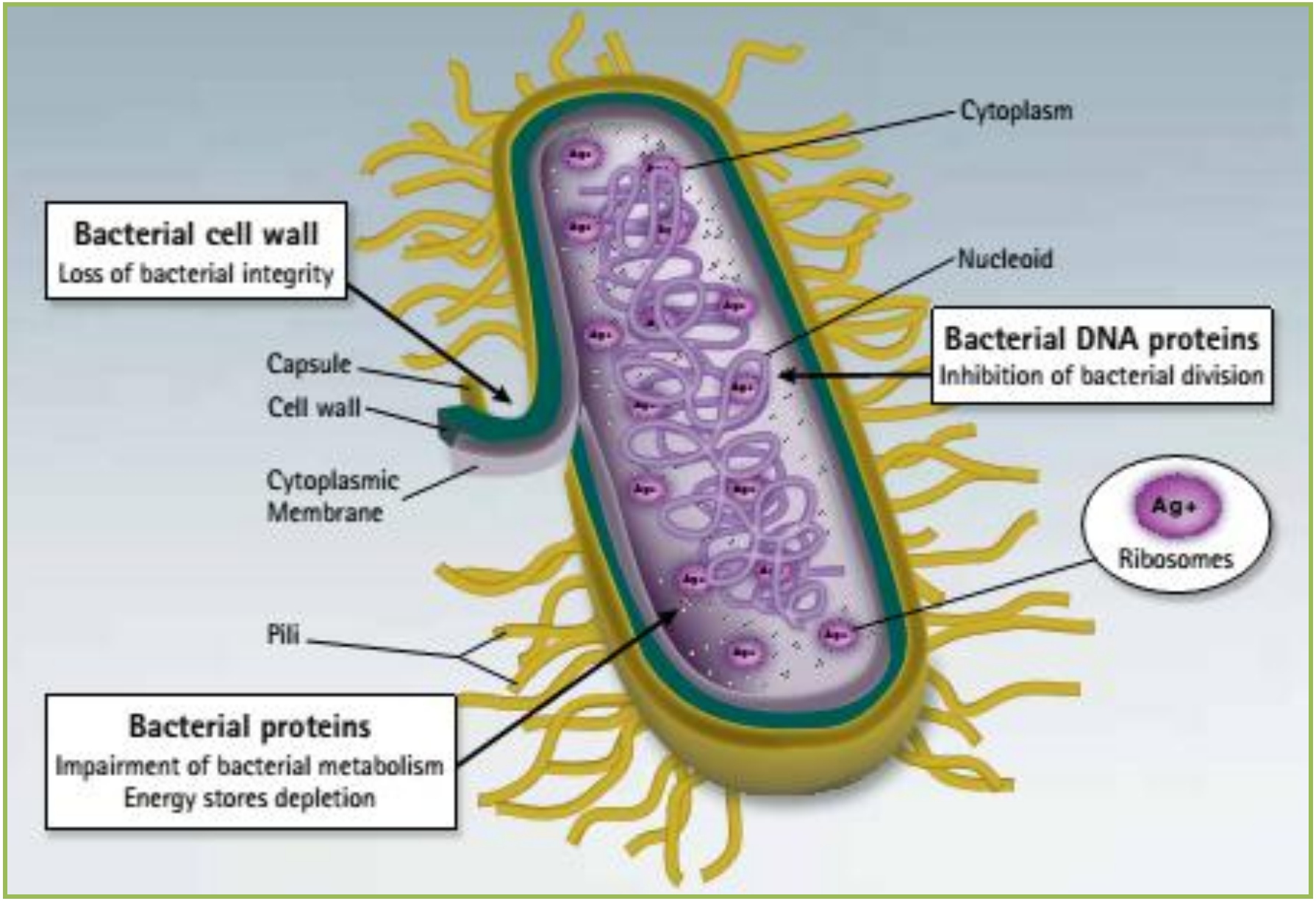
Antimicrobial - any agent that kills or prevents the multiplication of microorganisms, eg bacteria or fungi. Antimicrobials may be antibiotics, antiseptics or disinfectants

Antibiotics - agents that act selectively against bacteria and may be administered systemically or sometimes topically (although topical antibiotics are not recommended for wounds). They usually have one specific target of disruptive activity in bacterial cells and act against a narrower range of bacteria than antiseptics. Development of resistance to antibiotics is an increasing problem

Antiseptics - chemical agents that can be applied topically to skin or wounds. They are relatively non-selective agents that inhibit multiplication of, or kill, microorganisms. They may also have toxic effects on tissue cells, which has led to controversy and reduced their widespread use. Development of resistance to antiseptics is unknown in wound care. Antiseptics are often referred to as 'topical antimicrobials' even though the term also applies to topical antibiotics

Disinfectants - relatively non-selective agents often with multiple sites of action that kill a wide range of microorganisms including bacteria and fungi. Disinfectants are generally not suitable for use on body tissues because they are toxic to human cells

HOW DOES SILVER WORK



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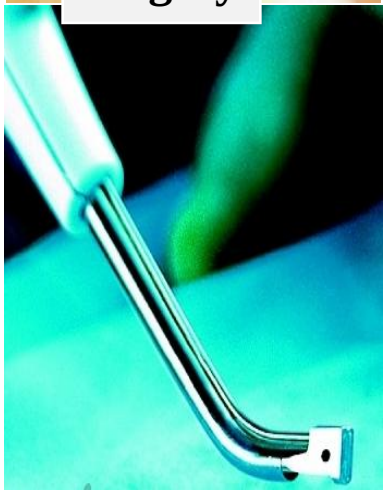
- **APPLICATION TO PRACTICE – TIPS FOR USING SILVER DRESSINGS**
- ■ For infected wounds, initial use should be for a two week challenge
- ■ Continued use of silver dressings should include regular review
- ■ Use silver dressings with caution in children and very large wounds

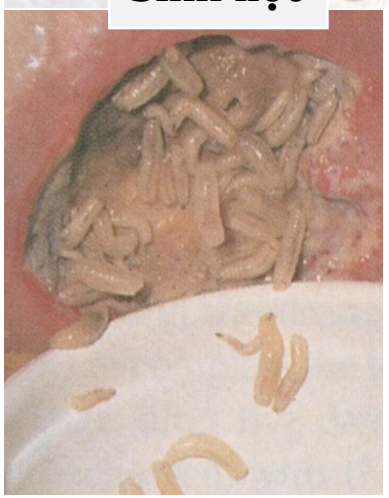
- **BOX 5: When not to use silver dressings**
- ■ In the absence of signs of localised (overt or covert), spreading or systemic infection
- ■ Clean surgical wounds at low risk of infection, eg donor sites, closed surgical wounds
- ■ Chronic wounds healing as expected according to comorbidities and age
- ■ Small acute wounds at low risk of infection
- ■ Patients who are sensitive to silver or any of the dressing components
- ■ Wounds being treated with enzymatic debridement
- ■ During pregnancy or lactation

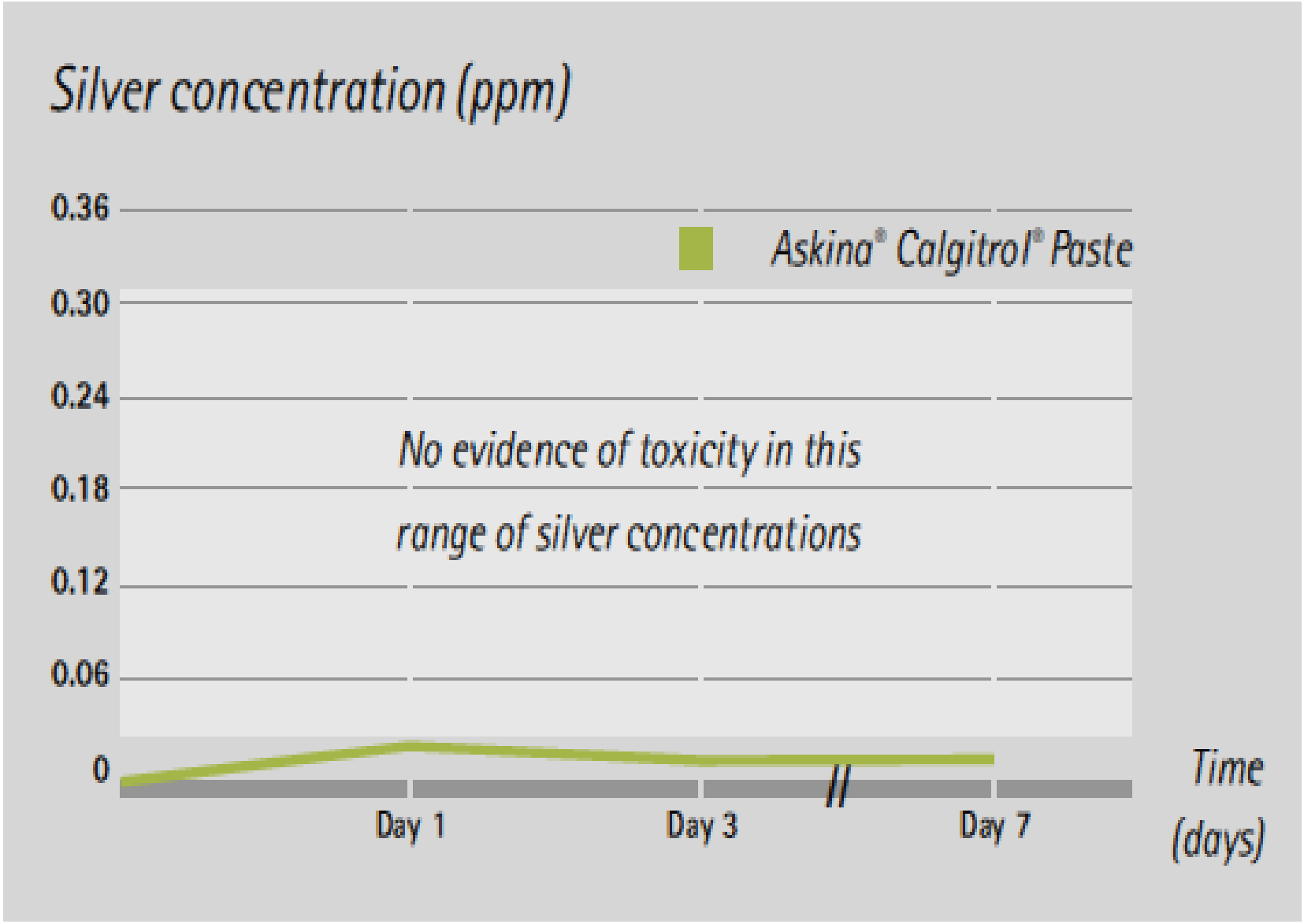
surgery

Enzym

Sinh học






Silver concentration (ppm)
0.36
0.30
0.24
0.18
0.12
0.06
0
Askina® Calgitrol® Paste
No evidence of toxicity in this range of silver concentrations
Day 1
Day 3
Day 7
Time (days)

BURNS			
Partial thickness burns	Askina Calgitrol Ag (silver alginate) versus SSD cream (n=65)	Opasanon S, et al. *Int Wound J* 2010; 7(6): 467-71	Healing time in the dressing group was significantly shorter than in the SSD group (p<0.02) Dressing group had significantly lower pain scores, fewer dressing changes and less nursing time than the SSD group (p<0.02 for all)
Partial thickness burns	AQUACEL Ag (silver Hydrofiber) versus SSD cream (n=70)	Muangman P, et al. *Int Wound J* 2010; 7(4): 271-76	Time to wound closure was significantly shorter for the silver Hydrofiber dressing group than for the SSD group (p<0.02) Number of hospital visits was lower for the silver dressing group (p<0.001) and total cost was significantly lower for the dressing group (p<0.01)
Freshly grafted burns	ACTICOAT versus 5% sulfamylon-soaked burn dressings (n=20)	Silver GM, et al. *J Burn Care Res* 2007; 28(5): 715-19	The median number of dressing changes was lower in the ACTICOAT group (p<0.05) and average cost per patient was lower with ACTICOAT There was no statistical difference between the two groups in wound healing and infectious complications
Partial thickness burns	AQUACEL Ag versus SSD (n=84)	Caruso D, et al. *J Burn Care Res* 2006; 27(3): 298-309	The silver Hydrofiber dressing was associated with less pain and anxiety during dressing changes, and less burning and stinging during wear than SSD (p<0.05 for these outcomes) The proportion of patients with full epithelialisation was not significantly different between the two groups Average cost-effectiveness for the silver Hydrofiber dressing was $1409.06 and for SSD was $1967.95 per burn healed
Second degree burns	Silver nanoparticle dressing versus SSD cream or vaseline gauze (n=191)	Chen J, et al. *Zhonghua Wai Ke Za Zhi* 2006; 44(1): 50-52	Silver nanoparticles and SSD cream produced a similar reduction in bacterial colonisation of the wounds; in the vaseline gauze group colonisation increased Healing time for superficial second degree wounds was significantly shorter for the silver nanoparticle group than for the SSD or vaseline gauze groups (p<0.01)
Partial-thickness burns	ACTICOAT versus SSD (n=47)	Varas RP, et al. *J Burn Care Rehabil* 2005; 26(4): 344-47	Pain during wound care was significantly lower for the ACTICOAT group than for the SSD group (p<0.0001)
Burns	ACTICOAT versus silver nitrate solution (n=30)	Tredget EE, et al. *J Burn Care Rehabil* 1998; 19(6): 531-37	There were fewer cases of burn wound sepsis and secondary bacteraemias in the ACTICOAT treated wounds than in the silver nitrate treated wounds (5 vs 16 and 1 vs 5 respectively)

Topical silver for preventing wound infection 18

- Infection rate 95%
- Wound healing rate: *14.5- 9.1 days*
- Cost: The mean cost per cm2 was USD 0.088 and USD 0.059
- Length of hospital stay: 20- 40%
- Pain
- Use of systemic antibiotics
- Surgery