ALCOHOL-BASED CHLORHEXIDINE HANDRUB SOLUTION OF THE HUG

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BACKGROUND
Nosocomial infections

Every year in the US, preventable hospital-acquired diseases, including nosocomial infections, are responsible for 44’000-98’000 deaths

Kohn Institute of Medicine 1999

In UK, nosocomial infections may be responsible for > 5’000 deaths /year

BMJ 2.12.2000
BACKGROUND
1999 Swiss NI Prevalence Study

Nosocomial infections

<table>
<thead>
<tr>
<th>Hospital size</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Large</td>
<td>10.8%</td>
</tr>
<tr>
<td>Intermediate</td>
<td>10.0%</td>
</tr>
<tr>
<td>Small</td>
<td>6.1%</td>
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Sax Arch Intern Med 02 (in press)
ALCOOL BASED HANDRUB

✔ Improves compliance.
✔ Superior to traditional handwashing with ordinary or antiseptic soaps.
✔ Requires less time.
✔ Acts faster.
✔ Less irritating to the skin.

Used in the only programme that reported a sustained improvement in hand hygiene compliance associated with decreased infection rates. (Pittet et al)².
Handwashing … an action of the past (except when hands are soiled)

Alcohol-based hand rub is standard of care
TIME FACTOR = major obstacle for hand hygiene

- Handwashing: 1 to 1.5 min
- Hand antisepsis: 1 to 1.5 min
- Alcohol-based handrub: 15 to 20 sec
Hands of Dr. B. after 1 week of ID consultation service using alcohol-based hand rub only

Hands of Dr. B. after 1 week of ID consultation service using handwashing or hand antisepsis with (un)medicated soap only

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1960: Development of antiseptic soap solutions. (HibiscubR).
1975: Development of a solution at the Cantonal Hospital of Fribourg (HCF): Isopropanol (IP) +CHX.
1979: Introduction of the HCF formulation in the University Hospitals of Geneva (HUG).
1984: A study confirms the efficacy of 0.5% CHX + IP. (Médecine et Maladies Infectieuse)\textsuperscript{8}.

1995: Beginning of the HUG campaign by the Infection Control Unit (UPCI) of Professor D. Pittet.

2000: Paper in the Lancet\textsuperscript{2} describing the successful outcome of Pittet’s campaign.

2001: 132’000 bottles produced by the HUG

2002: Industrial manufacturing agreement.

2002: The first batch supplied in

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ISOPROPANOL 75%:
- Rapidity of action: immediate.
- No residual activity.

CHLORHEXIDINE 0.5%:
- Rapidity of action: intermediary.
- Persistent effect.

EMOLLIENT:
- Improves cutaneous tolerance.

NO PERFUME:
- Only 2 cases of allergy recorded over the last 5 years.
The solution complies with European Standards (EN 1500) after only 15 seconds of contact which is the fastest time ever reached by a skin disinfectant.
Small bottle designed to fit in the pocket.

Cap conceived so that there was no finger contact with the solution.

Cartoon-type message printed on one side of the bottle.
Since 1995: A3 posters «Talking Walls» were displayed in 250 strategic areas to remind staff of the importance of hand disinfection.

Cartoons were also printed on the handrub bottles.

The objectives are described in detail at www.hopisafe.ch.

The operation was successful: 50% reduction of prevalence of nosocomial infections (16.9% in 1994 to 9.9% in 1998).
TALKING WALLS

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Figures since the beginning of the campaign.
The second most supplied product by the HUG pharmacy after 100ml IV bags of 0.9%NaCl. > 130’000 bottles.

It was necessary to outsource its production in order to sell it. We are not allowed to sell it ourselves, being a public hospital.

An industrial manufacturing partnership was concluded at the end of 2001 with B.Braun Ltd..

The product will be shortly on the market at low cost.
Available to public hospitals in Switzerland (Individual contracts during 2003.


European Registration ≈ 2005.

And then..... ?
Alcohol-based hand rub

Before and after any patient contact
Before and after glove use
REFERENCES


9. CEN (European committee for Standardisation). EN 1500 Chemical disinfectants and antiseptics- hygienic handrub, Brussels, Belgium.

IT'S IN THE POCKET!

Download at
www.hcuge.ch/Pharmacie/ens/conferences.htm

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