Universal Nasal Decolonization
An Unexpected Solution to Hospital Staffing and Financial Concerns

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I. Webinar Presentation
II. Independently conducted studies using Nozin® Nasal Sanitizer® antiseptic
This Webinar Sponsored By:
Universal Nasal Decolonization:
An Unexpected Solution to Hospital Staffing and Financial Concerns

PRESENTED BY:
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MSN, RN, CIC, FAPIC
Meet The Presenters

Karen Hoffmann
MS, BSN, RN, CIC, FSHEA, FAPIC

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MSN, RN, CIC, FAPIC

Disclosure: Consultants for Global Life Technologies Corp.
Learning Objectives

01. Identify a strategy your hospital can use to improve operational and financial performance through better, innovative patient care.

02. Demonstrate how a well-designed/high-impact infection prevention program can help address problems senior leadership are most concerned about.

03. Explain how to translate clinical success into performance metrics that match organizational goals.
Meet Angela
New Software?
Acquisition?
More equipment?
Service Lines?
HCW Integration?
A.I.?
Consultants?
Database?
Wait!

Could safer patient care – provided by the HCWs you already have – be a solution?

Maybe the answer is right under your nose?
HAIs Cost $35–45 Billion Each Year

Staph aureus is the leading cause of infections in US healthcare facilities

#1 CLABSI
PATHOGEN IN HOSPITAL WARDS

#1 PVAP
PATHOGEN IN ICUS

#1 SSI
PATHOGEN FOR ALL SURGERIES

Estimated Impact of Universal Nasal Decolonization*

- 190K HAIS AVOIDED
- $0 CAPITAL INVESTMENT REQUIRED
- $6B HAI TREATMENT COSTS AVOIDED
- 30M HCW HOURS SAVED

*Speaker estimates
How?

Simple concept

The nose is the main reservoir for *Staph aureus* and other pathogens that cause HAIs.

If the reservoir is drained, colonization pressures goes down – and so does infection risk.
What is Making This Possible?

#1
Understanding the power of universal nasal decolonization

#2
Intro of decolonization tools suitable for long term daily use
Why Decolonize All Patients?

30% of all patients are colonized with Staph aureus. Which patients are colonized?
Why Decolonize All Patients

Self-inoculation

Transmission-related

Universal Nasal Decolonization
Universal Nasal Decolonization Reinforces Other IP Programs

When colonization pressure is reduced, all current and future IP programs *will work better*, as they are being performed in a lower pathogen environment, including:

- Hand hygiene programs
- Environmental cleaning
- UV light robots, filtration, etc.
- Targeted bundles
Nasal Decolonization Evolution
An Ongoing Journey

TARGETED PRE-OP PATIENTS
MRSA (+) Ortho/spine

ALL ORTHO/SPINE PRE-OP PATIENTS

TARGETED ICU PATIENTS

ALL ICU PATIENTS

ALL ICU AND HIGH-RISK PATIENTS

ALL PATIENTS
# Product Evolution

Product evolution over the last 20 years is providing the capabilities required to execute the new programs.

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<td>Suitability for use</td>
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<td>Easy and pleasant to use</td>
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<td>Low cost</td>
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Real World Example

HOSPITAL A

• 365 beds
• 39 adult ICU beds
• Community hospital
Hospital A: Financial Benefits

ACTUAL HAI TREATMENT COSTS AVOIDED

- **12** CLABSI Infections Avoided
  ($48,108 each est.)
  $577,296

- **8** VAP Infections Avoided
  ($47,237 each est.)
  $377,896

- **70** MRSA-Related Readmissions Avoided
  ($12,000 each est.)
  $876,000

**$1,831,192**

HAI Treatment Costs Avoided
Hospital A: Financial Benefits

ADDITIONAL SAVINGS

• Total Excess LOS Days Avoided (est.) 211 Days
• Est. Net Patient Revenue Gained by Decreasing Excess LOS Days $952,500
• Total HCW Hours Saved (est.) 2,405 hours

$367,000 Nasal Decolonization Cost $2,784,292 Total Value Experienced
Real World Example

HOSPITAL B

- 136 beds
- 24 adult ICU beds
- Community hospital
## Hospital B: Financial Benefits

### ACTUAL COST AND REVENUE IMPACT

- Direct costs avoided (testing/PPE)  
  - $191,197
- HAI treatment costs avoided  
  - $546,000
- Est. net patient revenue gained  
  - $2,359,000
- HCW hours saved (est.)  
  - 3,842 hours

**Total Value Experienced**  

$130,097  

Nasal Decolonization Cost  

$3,096,197  

Total Value Experienced
Independent Clinical Studies

REAL WORLD OUTCOMES

AdventHealth North Pinellas, FL
96% DECREASE in MRSA bacteremia hospital-wide
Applied universal nasal decolonization to all inpatients and preoperatively to all surgical patients. Reached zero incidents of all Gram (+) and Gram (-) SSI after all surgical procedures. Saved $104k.

12 mo.

AdventHealth Wesley Chapel, FL
98% REDUCTION in total hip SSI
Applied universal nasal decolonization to all high risk patients, replacing targeted screen and isolate programs. Also instituted universal pre and post-op nasal decolonization for all orthopedic surgeries. Maintained ratio of zero SSI in total knee replacement for patients. Reduced use of contact precautions. Saved $207k.

12 mo.

AdventHealth Tampa, FL

$1.4m SAVINGS
Applied universal nasal decolonization to all inpatients, replacing targeted screening, isolation and decolonization with mupirocin for MRSA colonized patients. Retained low MRSA bacteremia rate and reduced contact precautions. Saved $1.4m.

12 mo.

Jackson Health System, FL
74% DECLINE in MRSA bacteremia
Compared to screen and isolate in the ICU only, a universal decolonization bundle hospital-wide reduced bacteremia by 74%. There was a significant decrease in the SIR after the introduction of Netm.

30 mo.

Frederick Memorial Hospital, MD
51% REDUCTION in 5 aureus SSI replacing PVP-I
Implemented a hospital-wide universal nasal decolonization program to all adult inpatients. Also replaced pre-op povidone-iodine solution with Neos and applied Neos pre-op. Maintained 90% compliance rate. Reduced use of contact precautions. Saved $223k.

17 mo.

Medical University of SC Hospital, SC
99% REDUCTION in 5 aureus SSI colony forming units
Applied a nonantibiotic, alcohol-based nasal antiseptic to healthcare professionals. Reduced Gram (+) pathogens including MRSA and MSSA by 99%.

99% REDUCTION in 5 aureus SSI colony forming units

WV University School of Medicine, WV
79% REDUCTION in SSI
Installed alcohol-based nasal antiseptic to total joint arthroplasty patients pre and post-op. Realized 79% reduction in SSI. Exceeded 75% compliance rate.

Marshall Medical Center, CA
$64k SAVINGS maintaining low MRSA rates
Applied daily nasal decolonization to MRSA patients (history, colonized or active). Reduced the use of contact precautions. Maintained low MRSA infection rates throughout the study.

12 mo.

Baylor Scott & White Orthopedic and Spine Hospital – Arlington, TX
81% REDUCTION in SSI
Implemented universal nasal decolonization across spine surgeries. Achieved reduction in SSI for spine patients from 1.76 to 0.33 per 100 surgeries.

5 mo.
Partner Services and Support

Manufacturers today offer analytical tools and expert program design help, as well as on site in-service support. Take advantage of these services.

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<th>Analytical Tools</th>
<th>Expert Help</th>
<th>Implementation Support</th>
<th>Post Implementation</th>
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<td>Customized colonization risk profile and analysis</td>
<td>Clinical support</td>
<td>Policy/procedure help</td>
<td>Continued support after your go-live date</td>
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<tr>
<td>Value proposition/ROI business case development</td>
<td>Program design help</td>
<td>IT consultation</td>
<td>Follow-up and quarterly audits</td>
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<td>Internal buy-in support</td>
<td>On-site team of educators to help train your staff</td>
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If Every Hospital Adopted This Strategy

- **$6 Billion:** HAI treatment costs avoided
- **30 Million:** Healthcare worker hours (HCW) saved
If Every Hospital Adopted This Strategy

~190,000 infections avoided
Real World Perspective

CONNIE STEED

MSN, RN, CIC, FAPIC

• Quality patient care
• Cost and process efficient
• Sustainability challenge - healthcare must sustain established standard of practice
Urgent Need to Respond to Increased Healthcare-Associated Infections (HAIs)

CDC NHSN increase in rates comparing Q3 2021 to Q3 2019

- VAE: 60.2%
- CAUTI: 13.6%
- CLABSI: 48.4%
- MRSA: 45.1%

Translating Infection Prevention Impact into Key Metrics Senior Leadership Manages

**WHAT ARE WE INVESTING?**

- No capital investment
- No software to buy/implement
- No additional staff required
- Can modify program based on performance at any time with no penalty
Return on Investment: What am I Getting?

- Patient Safety/Care improvement
  - Reduced infections & readmissions
  - Reduced patient length of stay
- Improved throughput
- Additional revenue potential
- Improved reputation
- Reduced risk of financial penalties resulting from hospital associated infections
Return on Investment: What is the Risk?

- To the patient?
  - Minimal - millions of patients safely and successfully treated
- To the organization?
  - Results do not meet expectations
Maybe the answer is right under your nose?

Safer, better patient care is good for business!
Question & Answer

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Connie Steed
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Thank you!
 Independently conducted studies
 using Nozin® Nasal Sanitizer® antiseptic
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### PROGRAM / PROTOCOL

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Reduction of nasal *Staphylococcus aureus* carriage in health care professionals by treatment with a nonantibiotic, alcohol-based nasal antiseptic.


- Randomized double-blind, placebo-controlled study tested the effectiveness of a nonantibiotic, alcohol-based antiseptic in reducing nasal bacterial carriage in health care professionals (HCPs) at an urban hospital center.
- HCPs testing positive for vestibular *S aureus* colonization were treated with topical antiseptic or control preparations.
- Nasal *S aureus* and total bacterial colonization levels were determined before and at the end of a 10-hour workday.
- Antiseptic treatment produced a uniform reduction in colony forming units (CFUs) at 99% (median) for *S aureus* and 91% (median) for total bacteria.
- Nasal application of a nonantibiotic, alcohol-based antiseptic was effective in reducing *S aureus* and total bacterial carriage, suggesting the usefulness of this approach as a safe, effective, and convenient alternative to antibiotic treatment.

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Impact of Reduced Isolation and Contact Precaution Procedures on Infection Rates and Facility Costs at a Non-Profit Acute Care Hospital.


- Replaced contact precautions and isolation with daily nasal decolonization with alcohol-based nasal antiseptic for all MRSA patients (history, colonized or active). (12-month trial)
- Additionally, did daily bathing with chlorhexidine gluconate cloths for all Intensive Care Unit patients.
- Low MRSA HAI rates/1000 patient days were maintained during the trial despite the change in CP Procedures. (Averages 0.152, 0.122, and 0.126 pre-intervention, versus 0.124 post-intervention)
- CP-related PPE costs were reduced by $64,350 annually.

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Perioperative participation of orthopedic patients and surgical staff in a nasal decolonization intervention to reduce Staphylococcus spp surgical site infections.


- Implementation of alcohol-based antiseptic nasal decolonization program for spine surgery patients: combined pre-operative nasal decolonization with existing chlorhexidine bath or wipes, plus post-operative nasal decolonization daily for 5 to 7 days.
- High level of adherence: Patient nasal decolonization rates averaged 95% over the 15-month trial period.
- To address transmission risk, voluntary self-decolonization by preoperative staff was actively encouraged.
- S aureus SSI rates were significantly decreased by 81% from 1.76 to 0.33 per 100 surgeries.
- The reduction in aureus SSIs observed in the spine surgical group during the intervention was not experienced by other surgical groups at the facility during that time, suggesting the strength of the association between nasal antiseptic use and the reduced infection rates is high.

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A Novel Protocol for Nasal Decolonization Using Prolonged Application of an Alcohol Based Nasal Antiseptic Reduces Surgical Site Infections.


- Total joint arthroplasty patients underwent nasal sanitization using an alcohol-based agent. (7-month trial)
- Applied pre-operatively and daily for two weeks post-operatively.
- Decolonization with the alcohol-based antiseptic was associated with a 78.5% reduction in surgical site infection (1/293 vs 7/527, p = 0.045, odds ratio = 4.5)
- Compliance was greater than 75% throughout the course of prolonged treatment.
- This low-cost intervention with high compliance rate significantly reduced our infection rate when introduced to the hospital system.

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Does Universal Nasal Decolonization with an Alcohol-Based Nasal Antiseptic Reduce Infection Risk and Cost?


- House-wide application of alcohol-based nasal antiseptic in place of screening and contact precautions (CP) for MRSA colonized patients. (12-month trial)
- Preoperative application of alcohol-based nasal antiseptic to all surgical patients in addition to existing preoperative chlorhexidine bathing.
- Reduced incidence of MRSA bacteremia from 3/1,000 patient-days to 0/1,00 patient-days.
- Reduced incidence of all-cause surgical site infection (SSI) for all types of surgical procedures – from 3/4,313 procedures to 0/4,872 procedures.
- Reduction in CP from 3.79 to 1.53/1,000 patient-days.
- Significant costs avoided—after accounting for the cost of the nasal antiseptic, the reductions in gowns, gloves and nasal screening resulted in $104,099 costs avoided in 12-months.

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Reduction of Hospital-Onset Methicillin-Resistant Staphylococcus aureus (MRSA) Bacteremia in an Acute Care Hospital: Impact of Bundles and Universal Decolonization.


• Screen and isolate in ICU plus CHG bathing for all ICU patients was replaced by universal decolonization bundle hospital-wide (alcohol-based nasal antiseptic, CHG bathing and alcohol-based wipes for patient hand hygiene).

• Four phase quality improvement project, with 20-month intervention period.

• There was a significant decrease in the SIR after the introduction of alcohol-based nasal antiseptic (Phase 3).

• The largest decrease in cases and SIR was observed during Phase 4 when hospital-wide alcohol-based nasal sanitizer together with alcohol-wipes for patient hand hygiene were added to daily CHG bathing.

• Nasal surveillance cultures and contact precautions (CP) for methicillin-resistant Staphylococcus aureus (MRSA)-colonized patients were discontinued.

• The Hospital-Onset MRSA bacteremia standardized infection ratio (SIR) decreased from 3.66 to 0.97 from baseline to post-intervention periods—a 74% reduction.

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Impacts of Coordinated, Hospital-wide Use of Alcohol-based Nasal Decolonization on Infection Rates, Patient Care and Cost Savings.


• Pre-operative iodine was replaced by pre-/post-operative alcohol-based nasal decolonization. (17-month trial)

• All adult inpatients received daily nasal decolonization. (19-month trial)

• Contact precautions (CP) for methicillin-resistant Staphylococcus aureus (MRSA)-colonized patients were discontinued.
• Staphylococcus aureus surgical site infection (SSI) rates decreased by 50.7% from 0.148/100 to 0.073/100 beyond the prior iodine-based protocol.

• CP use decreased by 39%, while maintaining low rates of MRSA bacteremia.

• Annualized savings of $223,150, net of decolonization costs, were estimated from CP, screening and SSI cost reductions.

• Improved nursing-care patient accessibility and cost-savings through reduction in CP use.

• Compliance rates with nasal antiseptic 96%.

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Alcohol-Based Nasal Antiseptic as Part of a Bundle to Reduce the Incidence of Contact Precautions and Surgical Site Infections.

Stegmeier, H. (2019). Open Forum Infectious Diseases, 6(S2), S446. [https://doi.org/10.1093/ofid/ofz360.1101](https://doi.org/10.1093/ofid/ofz360.1101)

• All high-risk patients received daily alcohol-based nasal antiseptic and chlorhexidine (CHG) bath, in place of targeted screening and CP. (12-month study)

• All orthopedic surgical patients received nasal alcohol-based antiseptic in place of screening and decolonization with mupirocin. Preoperative CHG bathing was already in place and was continued. Patients who remained in the hospital post-operatively received daily nasal antiseptic and CHG bathing.

• There was a reduction in the incidence of CP from 16% to 10% per day, while maintaining a rate of zero MRSA bacteremia.

• Reduction of gloves, gowns and nasal PCR tests, resulted in an estimated total cost reduction of $200,000.

• A statistically significant reduction in total hip SSI from a baseline of 1.15 infections per 100 procedures to 0.017 infections per 100 procedures (98% reduction, P = 0.014.), and the rate of zero SSI in total knee replacement patients was maintained.

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A Safe, More Cost-Effective Protocol: Universal Decolonization vs. MRSA Screening and Contact Precautions.


- Universal decolonization (alcohol-based nasal antiseptic plus chlorhexidine gluconate bathing) for all inpatients was instituted as a replacement for targeted nasal screening, contact precautions (CP) and decolonization with mupirocin of methicillin-resistant Staphylococcus aureus (MRSA)-colonized patients. (12-month trial)

- 42% reduction in isolation days ($118/day), a 74% reduction in nasal PCR tests ($36/each), and an 11% decrease in the monthly use of gowns ($12/each).

- The total cost avoidance (after accounting for the cost of the alcohol-based nasal antiseptic and CHG soap) was $1,394,685.

- There was no statistical change in the MRSA bacteremia rate (0.067 to 0.070) per 1,000 patient-days.

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Improving patient compliance with preoperative universal decolonization to reduce surgical infection rate and costs.

Candray, K. (2020). Open Forum Infectious Diseases. 7(S1), S479 https://doi.org/10.1093/ofid/ofaa439.1077

- To address spine patient non-compliance with preoperative nasal decolonization, replaced nasal povidone iodine (PVI) with alcohol based nasal antiseptic, paired with already in place preoperative bathing with chlorhexidine (CHG) foam soap, for all spine fusion and laminectomy patients. (3-month trial)

- Reduction in surgical site infections (SSI) of 64% from 0.58 to 0.21/100 spine fusion procedures and a reduction in SSI of 100% from 0.46 to 0.00/100 laminectomy procedures.

- Estimated cost avoidance of $127K associated with infections prevented.

- $37K per year cost savings resulting from switching from nasal povidone-iodine to alcohol based nasal antiseptic.

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Universal Preoperative Antiseptic Nasal and Skin Decolonization for Reduction in SSI and Associated Costs.


- Alcohol based nasal antiseptic was applied to all pre-operative patients in addition to chlorhexidine bathing already in place. (6-month trial)
- Resulted in a 59% reduction in all cause surgical site infections (SSI) for all procedures, from an average monthly baseline rate of 0.61 to an average monthly rate of 0.25.
- This reduction represents 22 fewer SSI with an associated estimated cost avoidance of $457,270 ($20,785/infection).
- This nasal antiseptic was selected over other nasal decolonizing agents in support of staff satisfaction and antibiotic stewardship goals.
- The staff survey revealed that 86% of respondents were very or extremely satisfied with efficacy and ease of use of the product, and >80% preferred the nasal antiseptic over mupirocin.

Can a nasal and skin decolonization protocol safely replace contact precautions for MRSA-colonized patients?


- 7 network hospitals replaced contact precautions (CP) for high-risk MRSA-colonized patients with targeted nasal and body decolonization, leading to significant cost savings and staff satisfaction without any increase in MRSA transmission.
- Alcohol-based nasal antiseptic was selected for enhanced effects when compared to PVI and mupirocin: it does not stain, is clean and well tolerated by patients, has a pleasant citrus odor, is suitable for selfapplication, is effective after a single application and has no known current mechanisms that contribute to microbial resistance.
- The impact of intervention was measured by comparing isolation day rates for MRSA-colonized patients and the associated costs of CP (disposable gloves and gowns), both at baseline (10-month preintervention) and for the 10-month decolonization study.
• Analysis of all 7 hospitals combined resulted in an overall decrease in isolation days of 88.33% (P = .000), and a reduction of glove and gown use with an associated net cost savings of $430,604 for the 10-month study ($42.32 average daily cost of contact precautions, $6.25 daily cost of Nozin plus CHG).

• There was no increase in the overall MRSA bacteremia SIR (P = .916, 95% confidence interval 0.606, 1.598).

• The majority of nurses/health care workers surveyed (89%) would recommend the alcohol-based nasal antiseptic to colleagues, and 94% of respondents who had previous experience with mupirocin preferred the alcohol-based nasal antiseptic.

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**A safer, less costly SSI prevention protocol—Universal versus targeted preoperative decolonization.**


• Added nasal decolonization with alcohol-based nasal antiseptic to the existing preoperative CHG bath for total joint patients (total hip and knee replacements). 12 month trial.

• Nasal decolonization was continued daily post-operatively while the patient was hospitalized.

• Resulted in a reduction in the total hip SSI rate from 0.91 to 0.00 per 100 procedures, and a reduction in the total knee SSI rate from 0.36 to 0.00 per 100 procedures.

• This represents a reduction of 4 total joint infections every 12 months, with an estimated associated total cost of more than $400,000 annually.

• Staff satisfaction survey showed >90% were satisfied with the ease of use with the alcohol-based nasal antiseptic and would recommend it to colleagues in other departments and hospitals.

• Increased patient satisfaction: comments included an appreciation of the decolonization protocol as an extra step to make them safer, and they liked the mild, pleasant scent.
Improving outcomes with revised preoperative universal decolonization protocol.

Gnass, S. (2020). Open Forum Infectious Diseases. 7(S1), S479 https://doi.org/10.1093/ofid/ofaa439.1076

- Universal preoperative decolonization protocol was implemented, replacing povidone iodine-based nasal antiseptic with alcohol-based nasal antiseptic. (6-month trial)
- The nasal antiseptic was paired with preoperative chlorhexidine bathing (already in place).
- 63% reduction (p=.0162) in all-cause SSI for all types of surgical procedures
- Savings of $589,420 during 6-month period (from avoidance of 17 SSIs during that same period)
- Alcohol-based nasal antiseptic was also provided to surgical team for application prior to each shift (not mandatory and compliance was not tracked; informal feedback/observation revealed most surgical team members were applying the nasal antiseptic prior to cases daily).

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Effectiveness of an Alcohol-Based Nasal Antiseptic in Reducing MRSA Bacteremia in an Adult Intensive Care Population.

Reeves, L., Barton, L., Williams, J., Don Guimera, Williams, B., Hysmith, N., & Morton, J. (2020). Infection Control & Hospital Epidemiology, 41(S1), s206. https://doi.org/10.1017/ice.2020.748

- Universal alcohol-based nasal antiseptic daily in adult intensive care setting. (7-month trial)
- 100% reduction in MRSA bacteremia: The rate of MRSA bacteremia declined from baseline at 0.2404 to 0. (12,475 patient-days in the retrospective group vs 12,733 in the prospective group).
- The alcohol-based nasal antiseptic was effective in reducing healthcare-onset MRSA bacteremia in intensive care population.
- This approach may be a safe and effective alternative to nasal antibiotic ointment that avoids antibiotic resistance risks.

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Alcohol-based Nasal Decolonization and Chlorhexidine Bathing to Reduce Methicillin-resistant Staphylococcus Aureus Hospital-acquired Infections in Critical Patients.


- Implemented a universal decolonization protocol within the critical care population of a large academic medical facility.

- Protocol: alcohol-based nasal decolonization plus chlorhexidine gluconate (CHG) bathing daily for length of stay.

- Inclusion criteria:
  - adult patients admitted to critical care
  - patients undergoing a procedure involving a surgical incision

- Study duration: 6-month baseline and 6-month intervention.

- Outcome: 62.5% reduction in hospital-associated LabID MRSA BSIs.

- While not deemed statistically significant for this short study period as indicated by a two-tailed t-test (p-value 0.19, CI 95% [-0.56, 2.23]), the overall reduction in HAI should be considered relevant to patient outcomes and overall infection prevention considerations.

- Implications for practice:
  - Decolonization protocols have shown to reduce HAI events.
  - This could contribute to decreased length of stay, decreased morbidity and mortality, and decreased financial burden.
The study evaluated the impact of improved compliance with an existing universal decolonization protocol on reducing MRSA bacteremia. The decolonization protocol consisted of a daily chlorhexidine gluconate (CHG) bath and twice daily nasal antiseptic application universally.

To reduce MRSA bacteremia rate, the facility implemented a multidisciplinary approach to increase universal decolonization compliance, coordinating interventions by infection prevention, data analytics, nursing, and leadership.

By improving the compliance rate for nasal antiseptic (Nozin Nasal Sanitizer) application from 84% to 94% and for chlorhexidine gluconate (CHG) bathing from 53% to 81%, the hospital was able to reduce MRSA bacteremia cases by almost 50% over a 12-month period.

Pre-intervention: MRSA bacteremia incidence rate: 1.27 infections per 1,000 patient days

Post-intervention: MRSA bacteremia incidence rate: 0.63 infections per 1,000 patient days

This study supports decolonization protocols as an effective intervention in reducing MRSA bacteremia rates.
This study aimed to implement a decolonization protocol previously utilized for adult populations in the pediatric critical care (CC) setting (CICU, NICU, and PICU) of an academic pediatric medical center and analyze its impact on patient outcomes.

Nasal decolonization protocols were developed for children ages two and older (alcohol-based nasal antiseptic) and children younger than 2 (mupirocin). The protocol also included daily CHG bathing for all patients.

MRSA bacteremia and MRSA rates were analyzed before and after the intervention, using NSHN criteria for identification.

- Compared to the pre-intervention period, the hospital-onset MRSA rate/1000 patient days dropped 41%, from 1.459 to 0.867.
- The hospital-onset MRSA bacteremia rate/1000 patient days decreased 54%, from 0.381 to 0.173.
- MRSA reduction was even more significant in individual units. The cardiac ICU saw an 86% reduction in hospital-onset MRSA cases post-intervention and no MRSA bacteremia cases.

Decolonization protocols led to a 41% reduction in hospital-onset MRSA rates and a 54% reduction in hospital-onset MRSA bacteremia rates in pediatric CC populations.

Implementing decolonization protocols in pediatric CC units improves patient outcomes, including a significant reduction in length of stay (from 6.8 days to 6.2 days).

The decolonization protocol proved cost-effective, with potential savings compared to the cost of treating MRSA infections.
About Nozin

Nozin is the leading brand in nasal decolonization. Nozin NOVA programs are a clinically proven infection prevention solution shown to significantly reduce MRSA and MSSA infections. Designed to improve care, lower infection risk and reduce healthcare costs, Nozin NOVA programs utilize Nozin® Nasal Sanitizer® antiseptic with clinically supported infection prevention solutions for hundreds of healthcare facilities nationwide. Learn more at nozin.com.