

Pre-Antisepsis Cutaneous Colonization at the PICC-Port Insertion Site as a Predictor of Reservoir Infection

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INTRODUCTION

Catheter-related infections remain a major complication in patients with totally implantable venous access devices (PICC-ports), leading to morbidity, catheter removal, therapy delays, and increased healthcare costs.Skin colonization at the insertion site is suspected to contribute to infection; however, its predictive value prior to antisepsis remains unclear.

OBJECTIVE

To evaluate whether pre-antisepsis skin colonization predicts reservoir infection in PICC-port patients.

METHODS

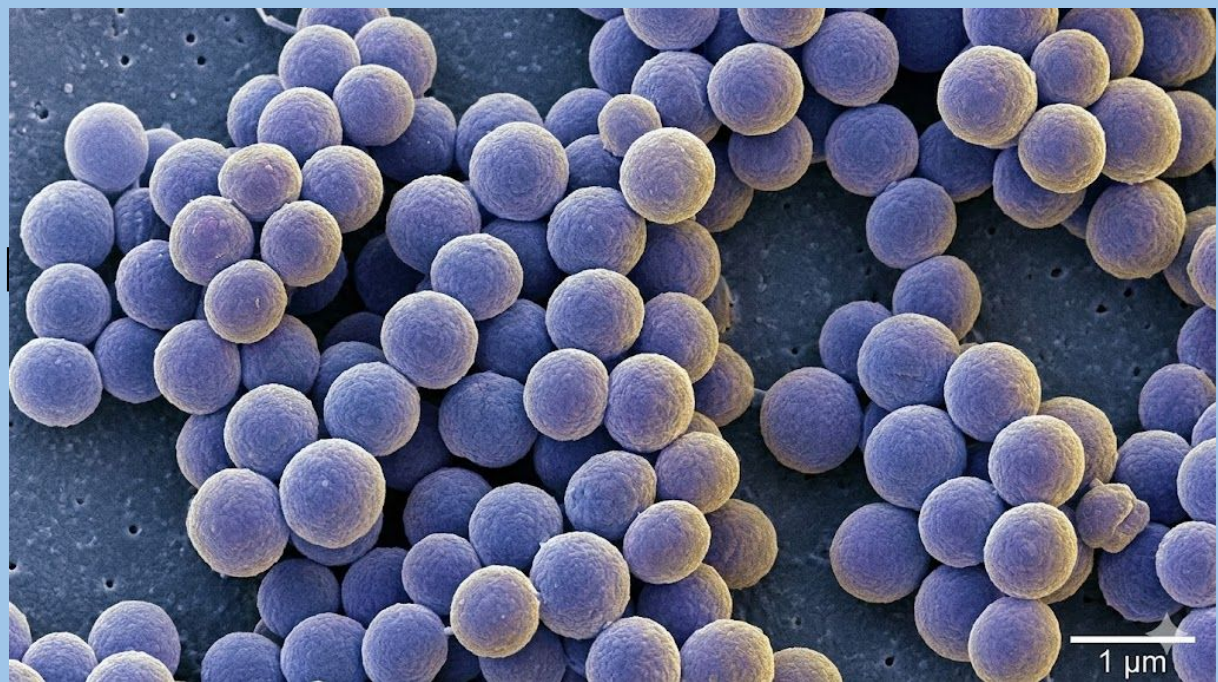
Design: Prospective observational study (12 months)

Sample: 130 adult patients

Setting: Specialized vascular access unit

Procedure:

- Sterile cutaneous swab before a



- Data collected:

- Demographics
- Comorbidities
- Catheter dwell time
- Microbiology

Outcome:

Microbiologically confirmed reservoir infection

Analysis:

Multivariate logistic regression

RESULTS (EXPECTED)

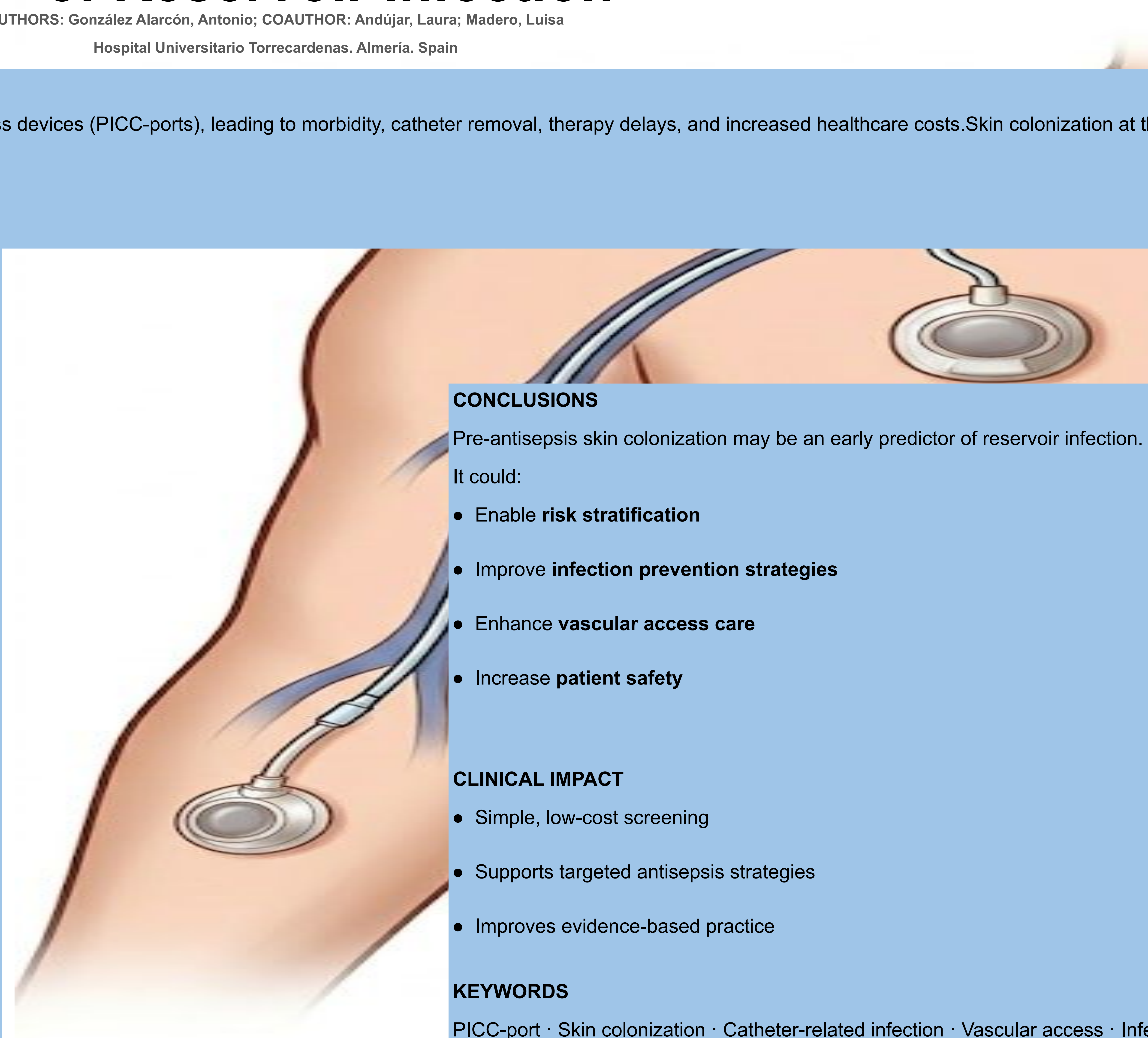
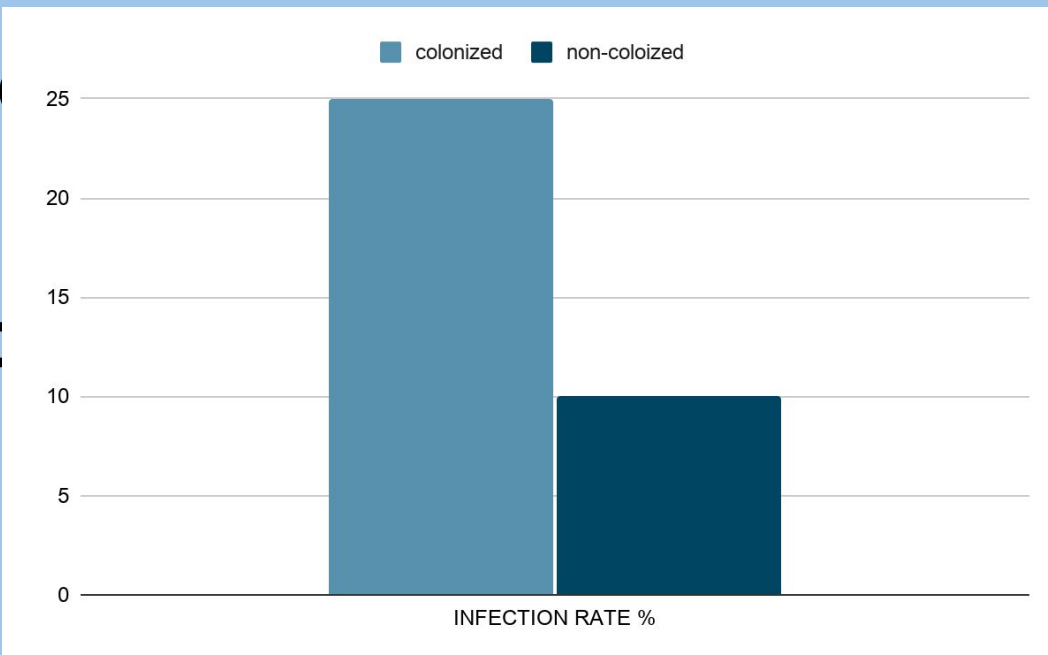
- Colonization rate: **20–35%**

- Predominant flora:

- Coagulase-negative staphyl

Hypothesis:

Colonized patients → **>2× infect**



CONCLUSIONS

Pre-antisepsis skin colonization may be an early predictor of reservoir infection.

It could:

- Enable **risk stratification**
- Improve **infection prevention strategies**
- Enhance **vascular access care**
- Increase **patient safety**

CLINICAL IMPACT

- Simple, low-cost screening
- Supports targeted antisepsis strategies
- Improves evidence-based practice

KEYWORDS

PICC-port · Skin colonization · Catheter-related infection · Vascular access · Infection prevention