

Effective PICC Securement Creating an Ongoing Sustainable Environment

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IVNNZ. Inc. National Conference

16th-17th March 2018



Disclosure: No known conflict of interest

ABOUT US:

- The Canterbury District Health Board is the second largest health provider in NZ
- Tertiary - acute - complex service
- Medical School & Research centre

An aerial photograph of a large, modern hospital complex with multiple white buildings, surrounded by lush green trees and a winding river. The image is framed by a dark blue border.

**Across Canterbury and the West Coast Regions:
Provides health services to population of 600,000 NZs
Place between 1500-1650 PICCs annually**

HEALTHCARE IS A COMPLEX ADAPTIVE SYSTEM
DELIVERED BY PEOPLE ON THE FRONT LINE WHO FLEX
AND ADJUST TO THE CIRCUMSTANCES



WE WORK IN A WORLD OF
CONTINUOUS & FAST DEVELOPMENT OF MEDICAL DEVICE
DESIGNED TO GENERATE CONTINUOUS IMPROVEMENT

INTRODUCING NEW DISCOVERIES & TECHNIQUES IS INEVITABLE

THESE INNOVATIONS CHALLENGE US & REQUIRE US
TO RE-DEFINE CLINICAL PRACTICE



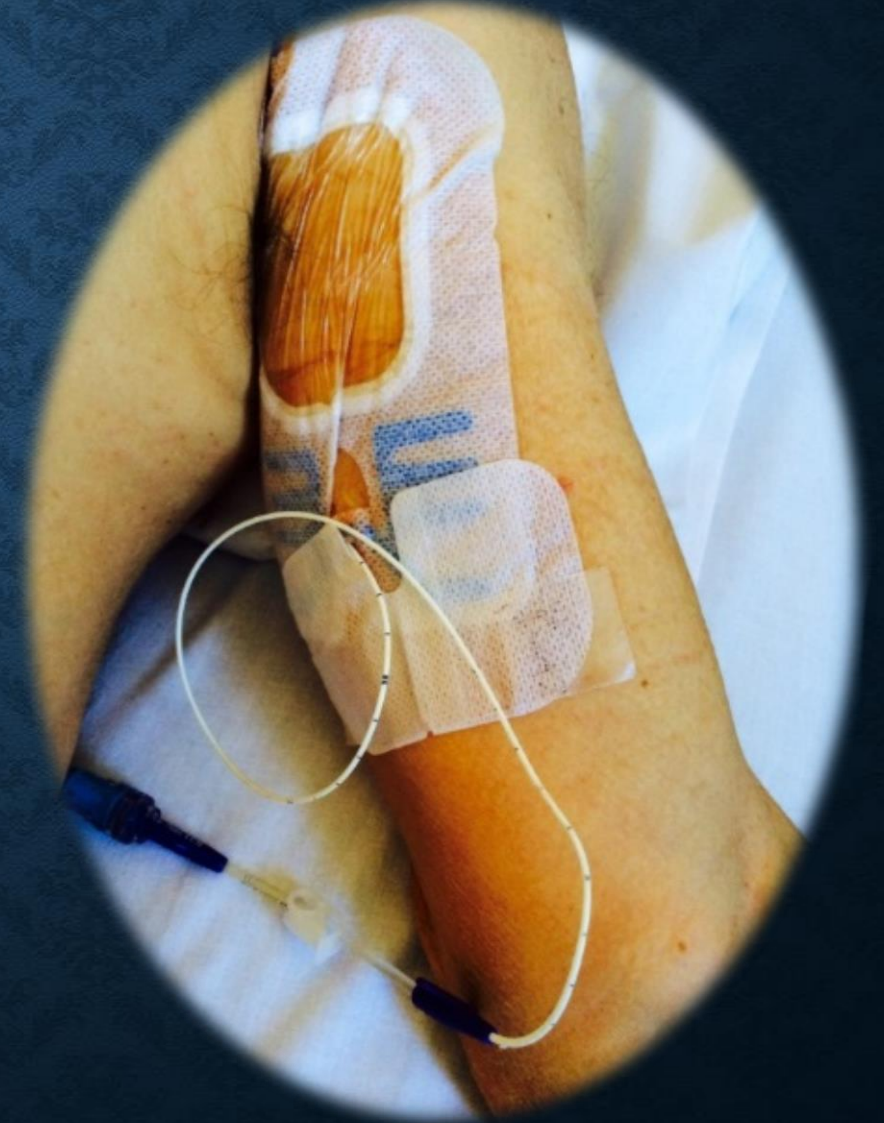
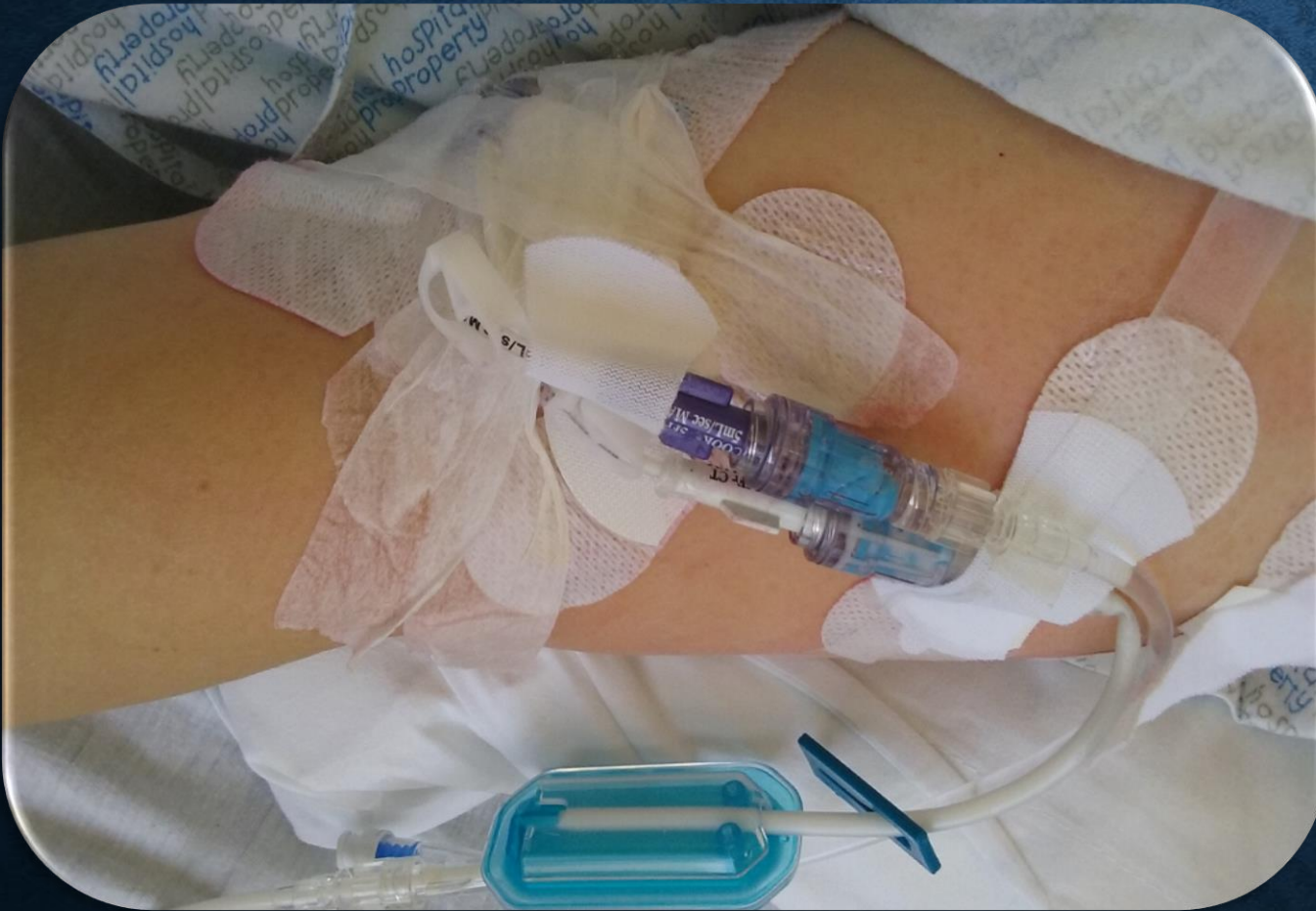
WHY DO PICCS MIGRATE?

1. Area of insertion site

2. Human factors

- Skill mix
- Lack of experience = lack of confidence > serious error
- Skill decay -“the last time I dressed a PICC was ...”
- ‘cultural attitudes’ - cultural shifts away from norm
- Expectations / product
- Patient variables
- ‘Missing in action’- on the job learning

- PICC securement is fundamentally a management and care issue. It can be the difference between catheter success and failure or death



THE GOAL – TO ACHIEVE



- ✓ Zero PICC migration
- ✓ One stabilization device for life of PICC
- ✓ Decrease PICC related HABSIs
- ✓ Stabilisation solution for patients with skin reactions/Irritant Contact Dermatitis
- ✓ Increase staff confidence during cleaning and dressing
- ✓ Increase patient satisfaction and safety
- ✓ Fiscal responsibility

PRE-TRIAL AREA RESULTS 2014 MIGRATION & RE-INSERTION

2 Pre-Trial Areas	COST
179 PICCS inserted	\$ 70.005
24 Migrations requiring re-insertion	\$9.480
TOTAL COST	\$79.485

PRE-TRIAL RESULTS CAMPUS WIDE

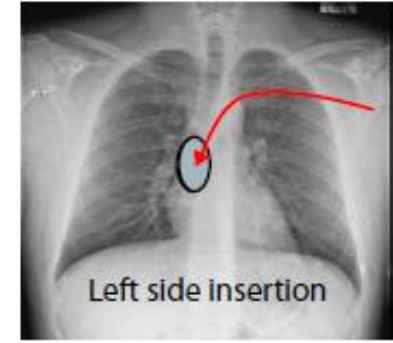
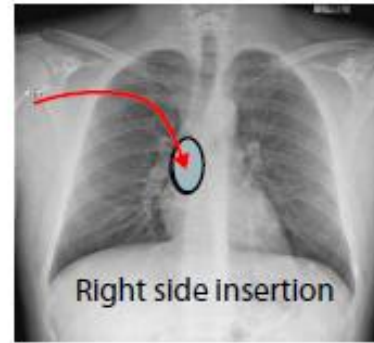
ANNUAL COST INSERTION /RE-INSERTION PER YEAR

Total PICCs inserted	1650
Cost Per Insertion	\$395.00
Total Cost	\$651.750
Estimated Migrations requiring re-insertion	150
Cost of replacement	\$59.250
OVERALL COST	\$711.000

Four month Trial of SecurAcath™ 2015

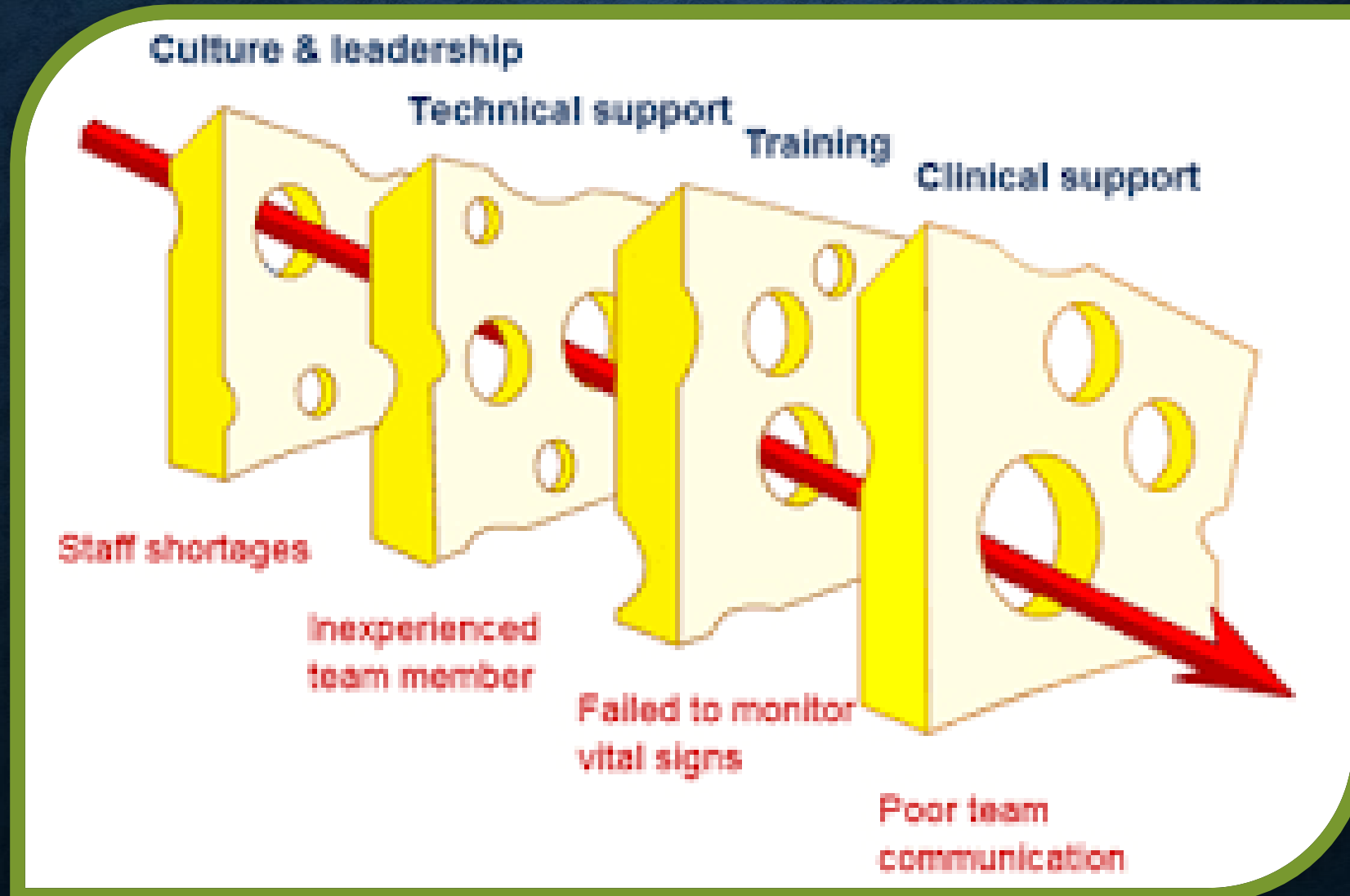
Criteria for Replacement:

1. PICC migration that met the criteria for replacement
2. Patients with history of PICC migration requiring re-insertion for essential IVT
3. Skin related issues
4. Vessel health preservation & patient safety



- 1** If the catheter tip *migrates out 2cms* continue to use, but monitor for any further migration.
- 2** If the catheter tip *migrates out 4 - 8cms*, only isotonic solutions should be infused. If irritant or vessicant solutions i.e. Parenteral Nutrition are required, the *PICC must be removed* to prevent complications such as vessel erosion, perforation or DVT.
Replace PICC if still required.
- 3** If the catheter tip *migrates out 8cms or greater*, **REMOVE PICC**.
Replace PICC if still required.

LESSONS FROM 2015 TRIAL



THE CHALLENGE OF A LARGE SYSTEMS CHANGE

- Creating sustainability in the clinical environment
- Ability to see and understand the complexities of practice within each area
- Is there a formula for success?
- Does this guarantee ongoing sustainability?

BENEFITS OF GRADUAL ROLLOUT 2016-2017

Provide platform for:

- Effectively align critical device education with practical skills
- Nomination of resource person/s
- Weekly ward rounds provided foundation for:
 - building knowledge & skills
 - confidence & commitment at bedside
 - 'Moment in time' opportunity- education
 - staff engagement & feedback proved essential
 - audit

2 YEARS ON...

HAVE WE CREATED A SUSTAINABLE AND SAFE ENVIRONMENT?

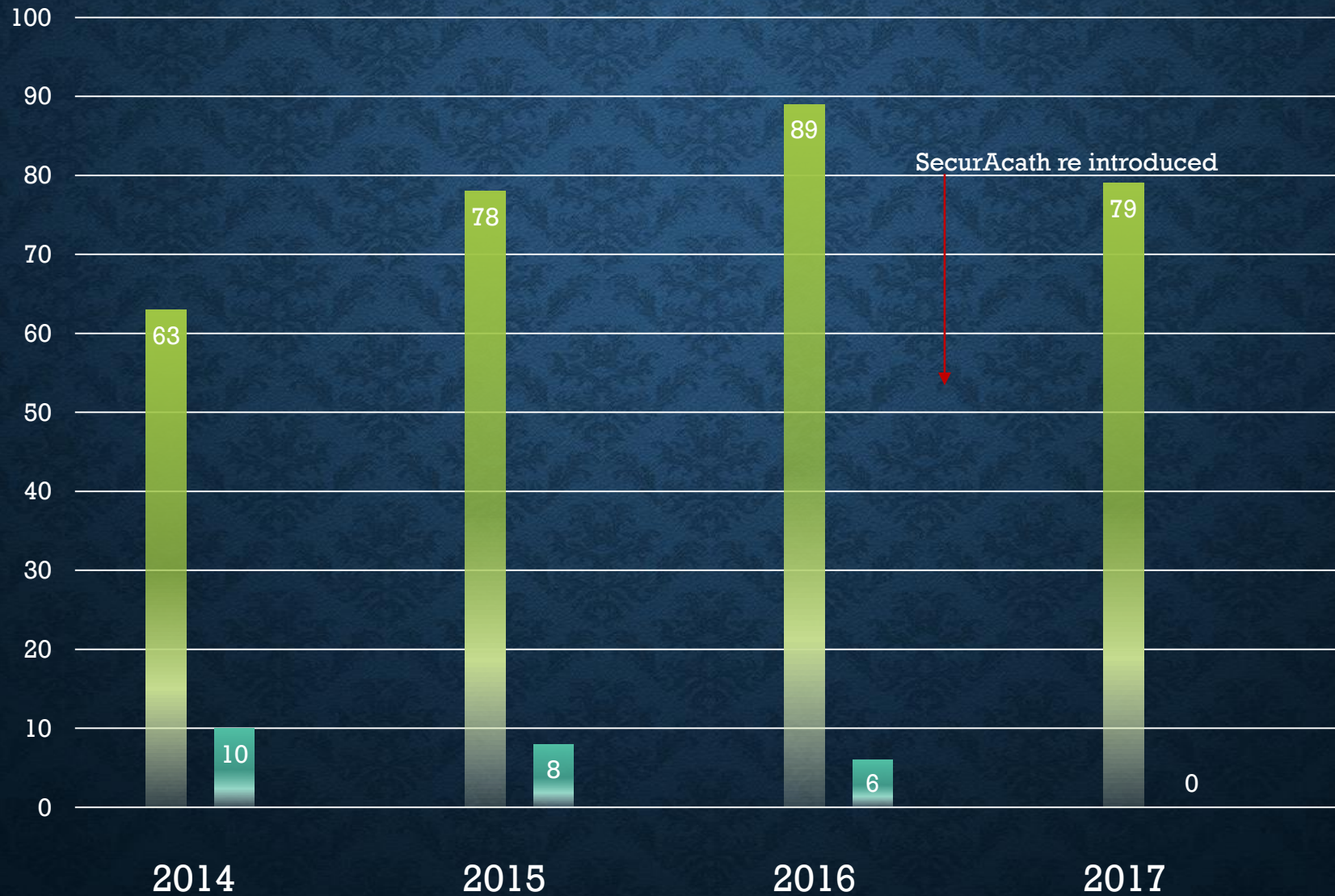
ARE WE CHANGING CULTURE AND ATTITUDES TOWARDS PICC MANAGEMENT?

SOME OF OUR RESULTS TO DATE...

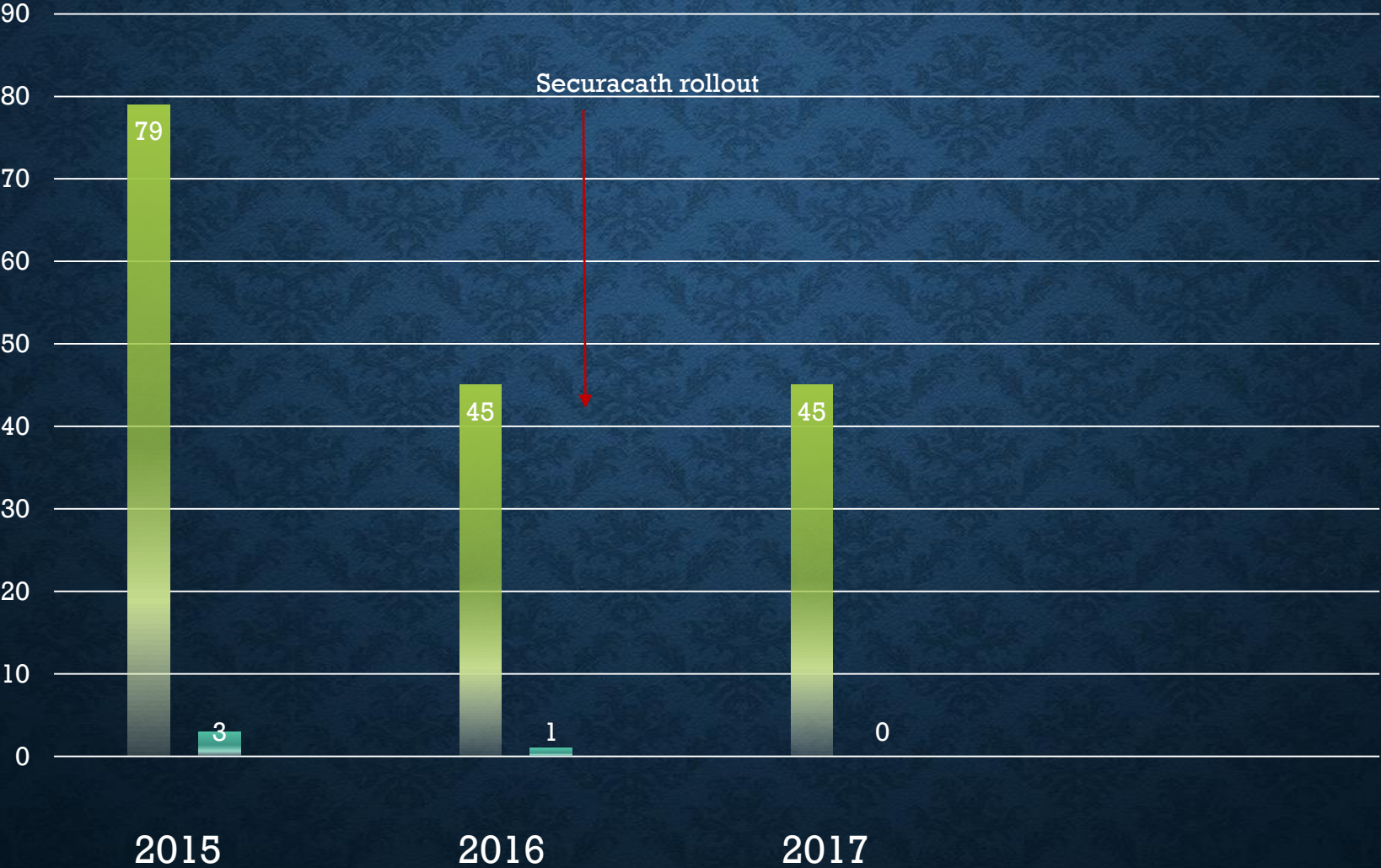
TRIAL WARD SURGICAL MIGRATION/REINSERTION



CONTROL WARD MIGRATION/REINSERTION

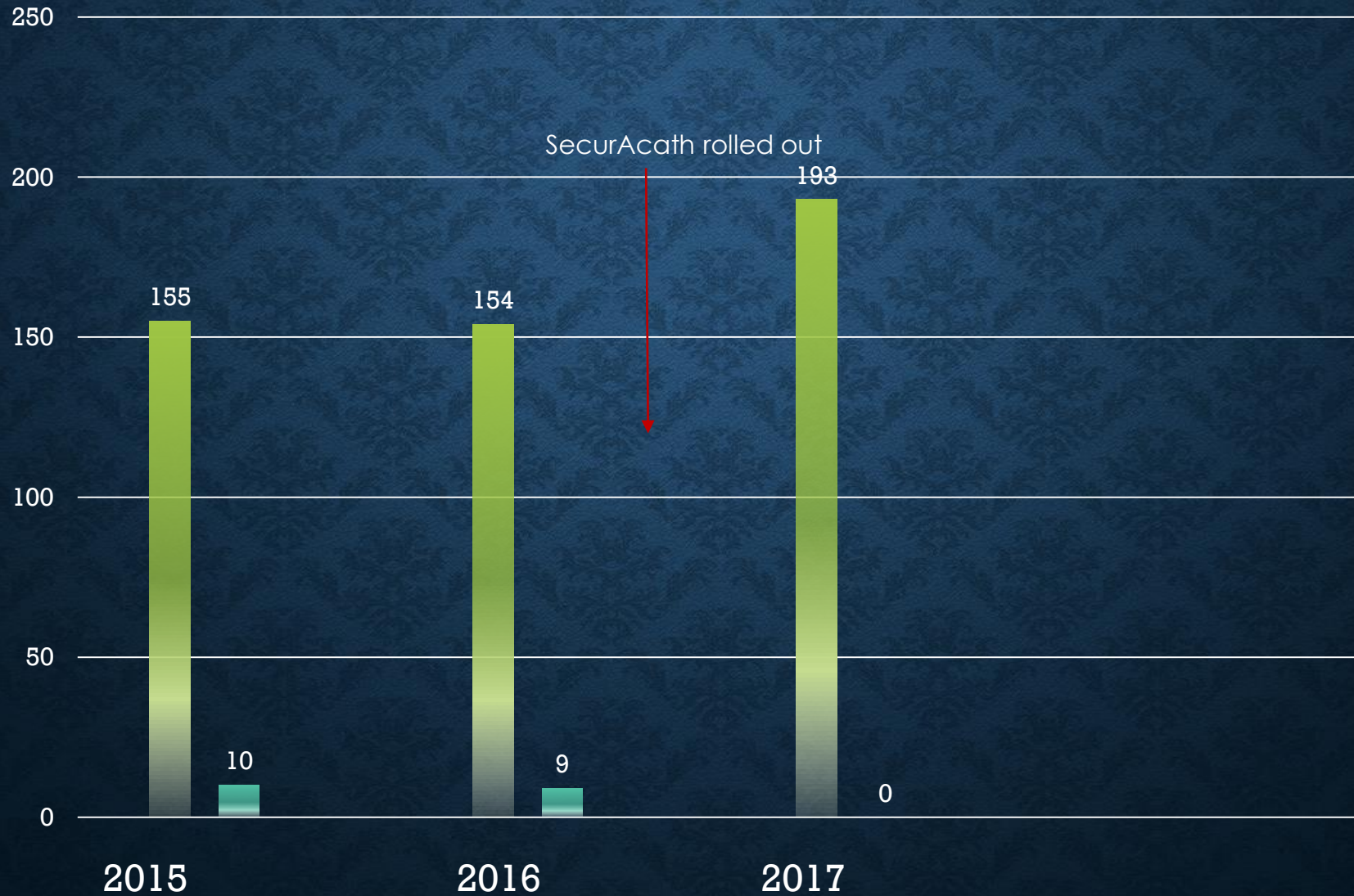


AREA 1 MIGRATION/REINSERTION



AREA 2 (WITH SHARED COMMUNITY CARE)

MIGRATION/REINSERTION



AREA 3 MIGRATION/REINSERTION

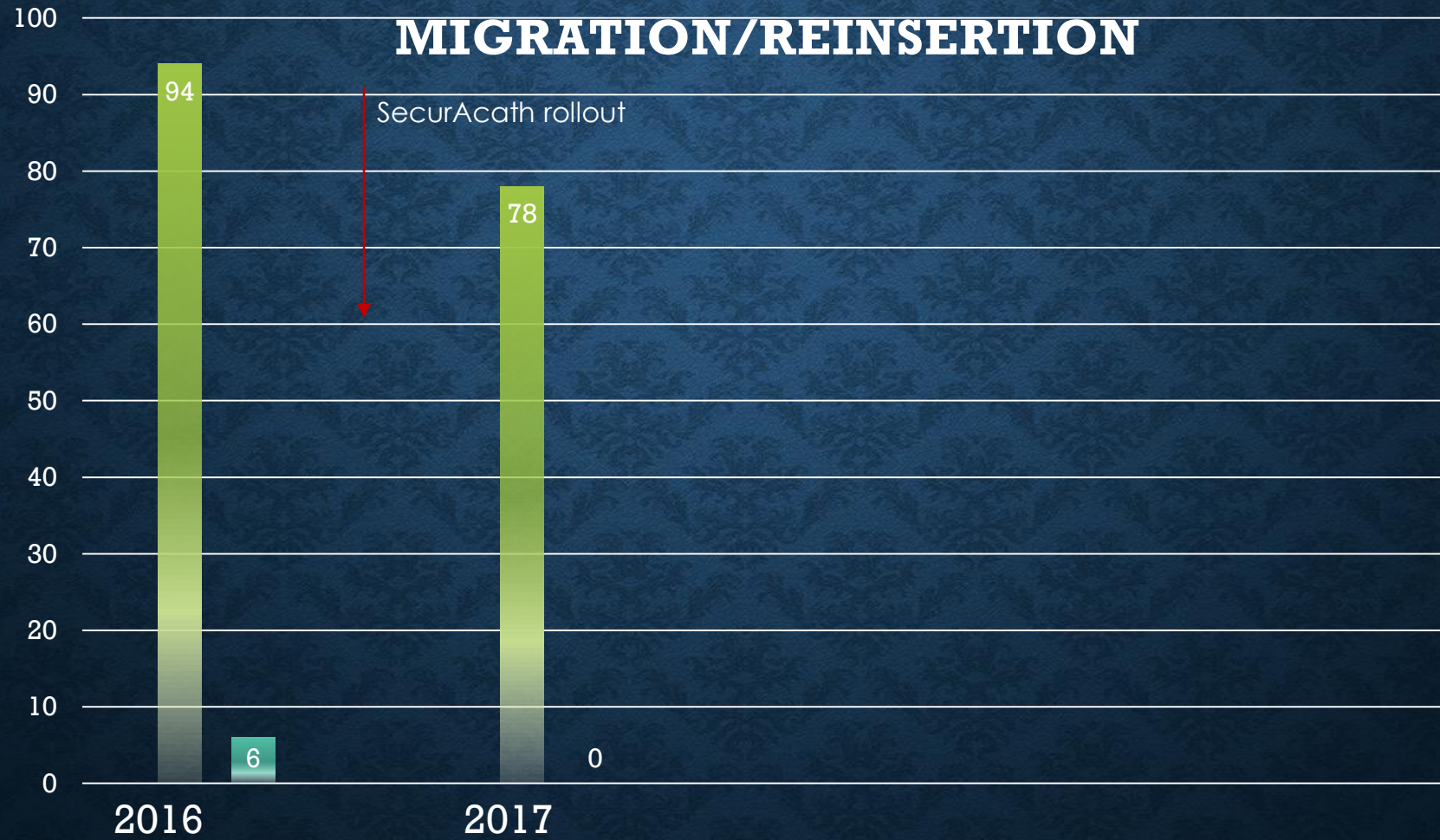


AREA 4

MIGRATION/REINSERTION

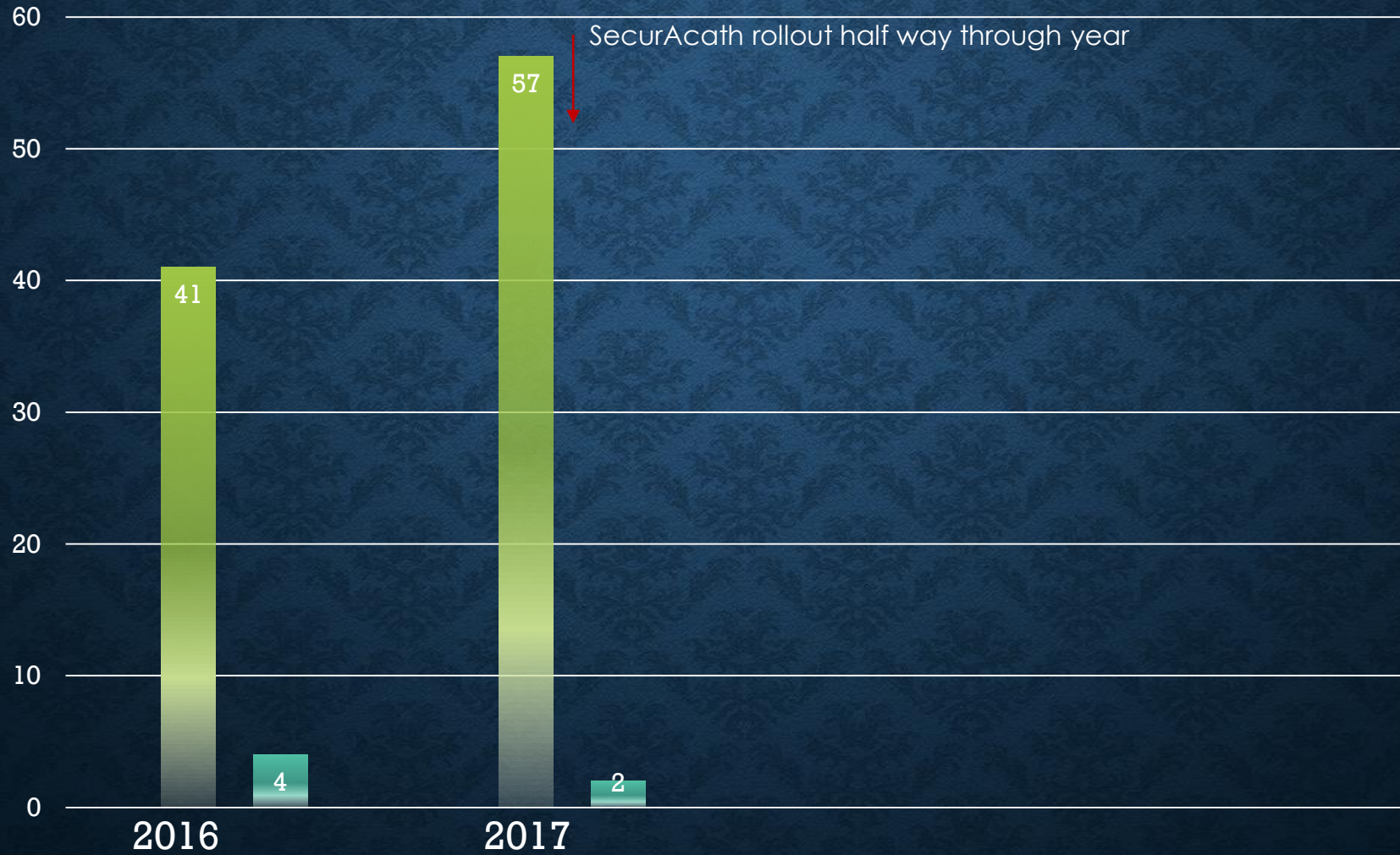


AREA 5



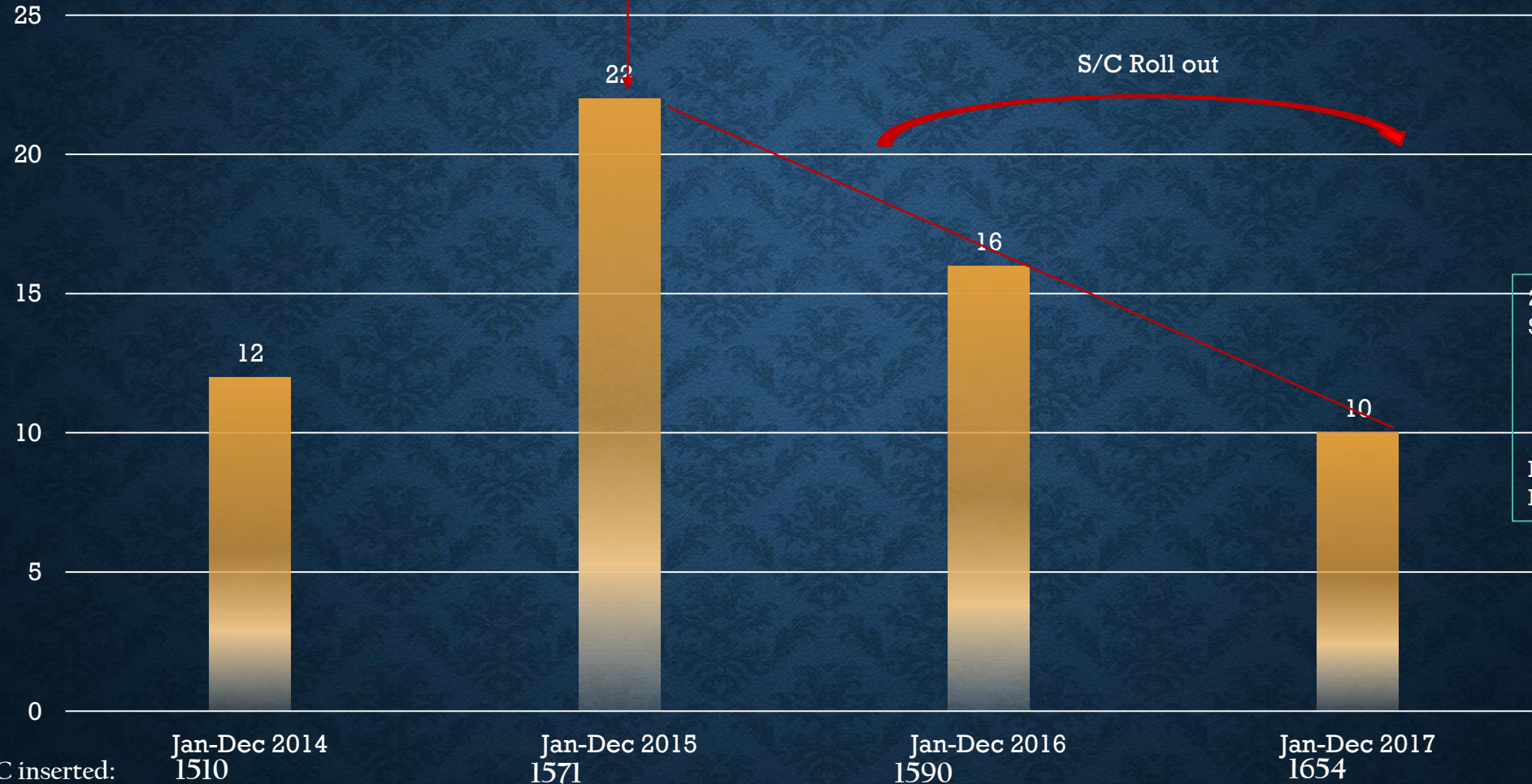
AREA 6

MIGRATION/REINSERTION



PICC HABSI

SecurAcath™ Trial commenced mid June 2015



Cost of treating HA BSI \$20-50.000

- Staff engagement
- Mentoring
- Commitment

**Improved
Patient
Outcomes**

- Knowledge
- Skill
- Confidence

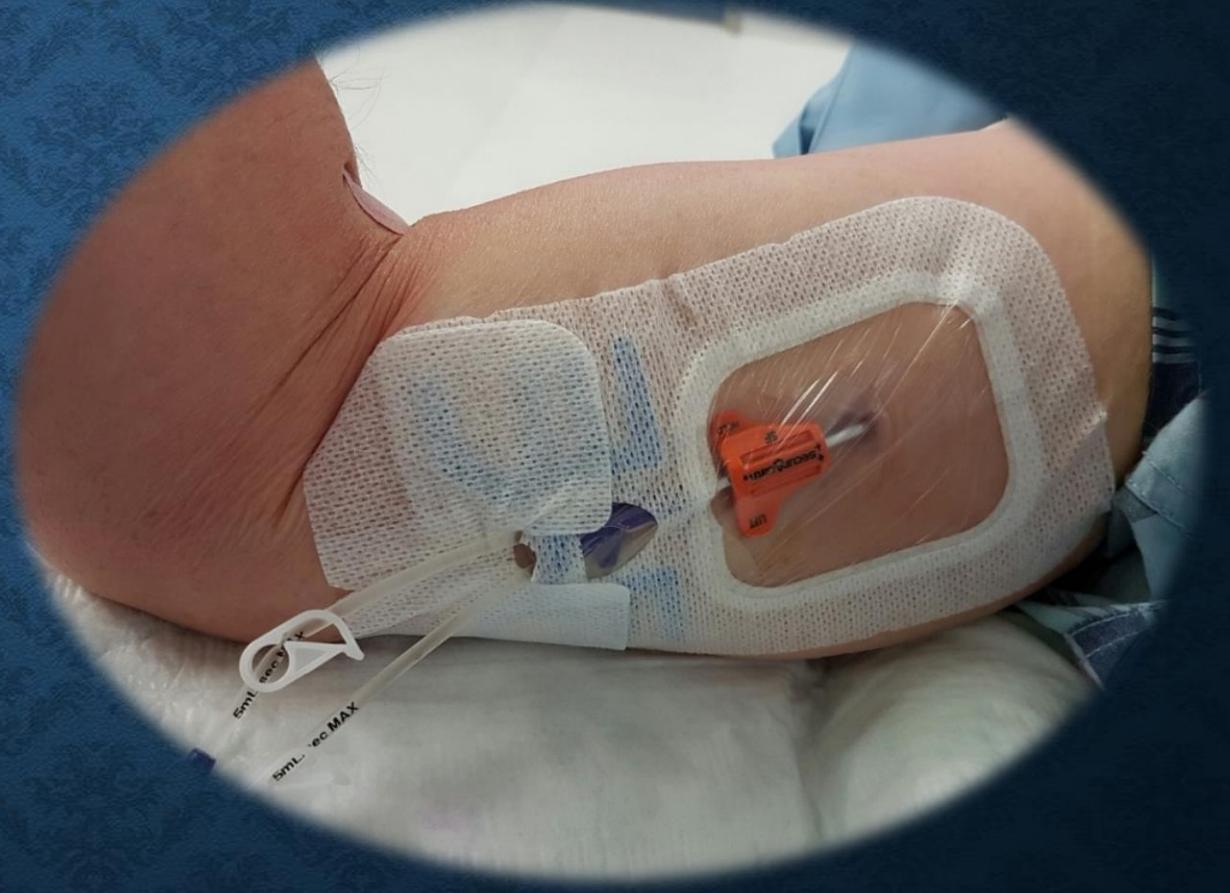
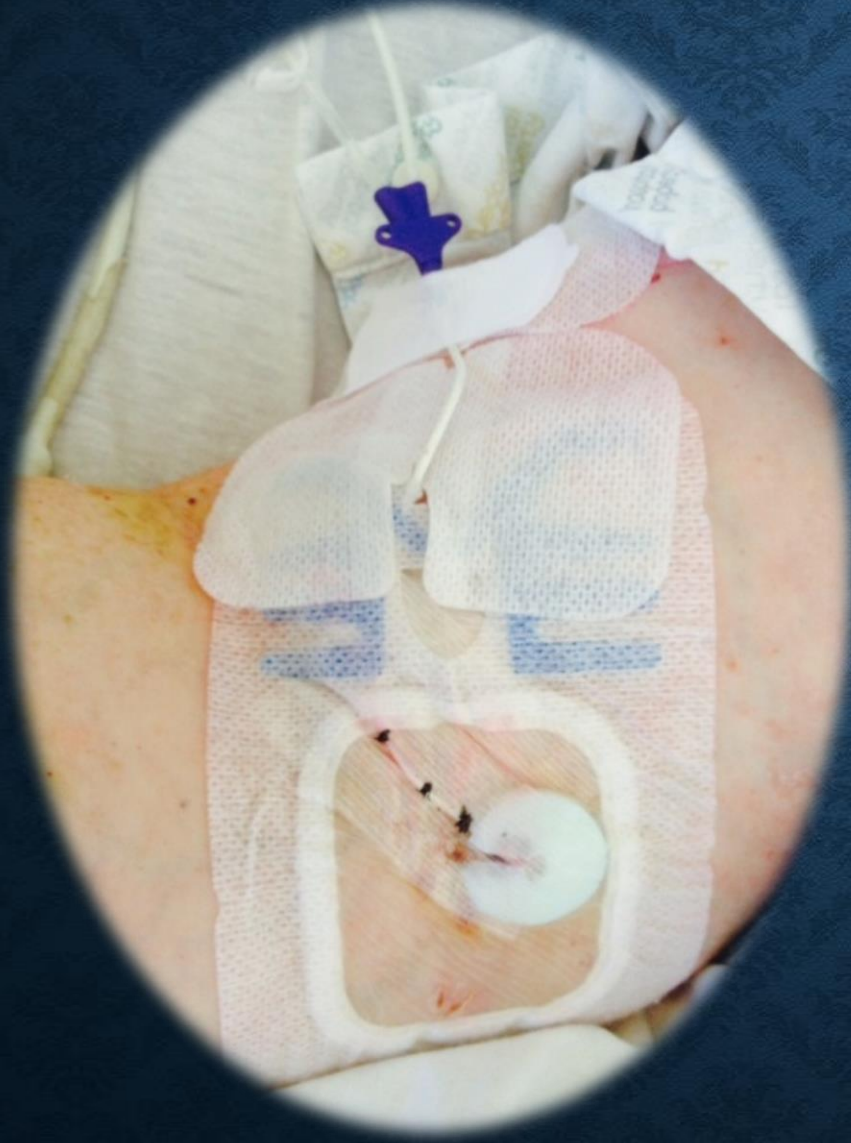
**Best available clinical evidence
Effective Product**

FORMULA FOR SUCCESS

- 'on the job learning'
- Reinforcement of knowledge & skills learnt
- Accountability & support systems
- Provide deliberate and consistent reinforcement
*this is the value of processes and systems that reinforce,
encourage and monitor those critical behaviours*

CREATING A CULTURE OF SAFETY TRANSFERRING LEARNING TO BEHAVIOUR

Reinforcement that occurs after the training event produces the highest level of learning effectiveness



Spreading best practice

Planting new seeds



*“We are what we repeatedly do.
Excellence, then, is not an act, but a habit.” Aristotle*

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