

Innovation, Technology and Specialized Skills: Strategies Needed to Face the Challenges of an Out-Patient IV Therapy Department

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Parenteral Therapy

Many of these treatments are complex, pose risks to patients' health and require continuous quality improvement and patient safety measures. Providing integrated accessible health services for patients with these needs can be challenging.

Parenteral Therapy

❖ OPAT (Out-patient antibiotic therapy)

- Cellulitis
- Osteomyelitis
- Endocarditis
- Septic arthritis
- Joint replacement infections
- Ulcerations
- Post-op wound

❖ Transfusions

- Red cells
- IVIG
- platelets


Parenteral Therapy

- ❖ Chronic disease management
 - Crohn's Disease
 - Rheumatoid Arthritis
 - Scleroderma Interstitial Lung Disease
 - Vasculitis
 - Enzyme replacement therapies
 - Multiple Sclerosis
 - Hemochromatosis
 - Polycythemia
- ❖ Deep vein thrombosis
- ❖ Anticoagulation bridging

Northern Health

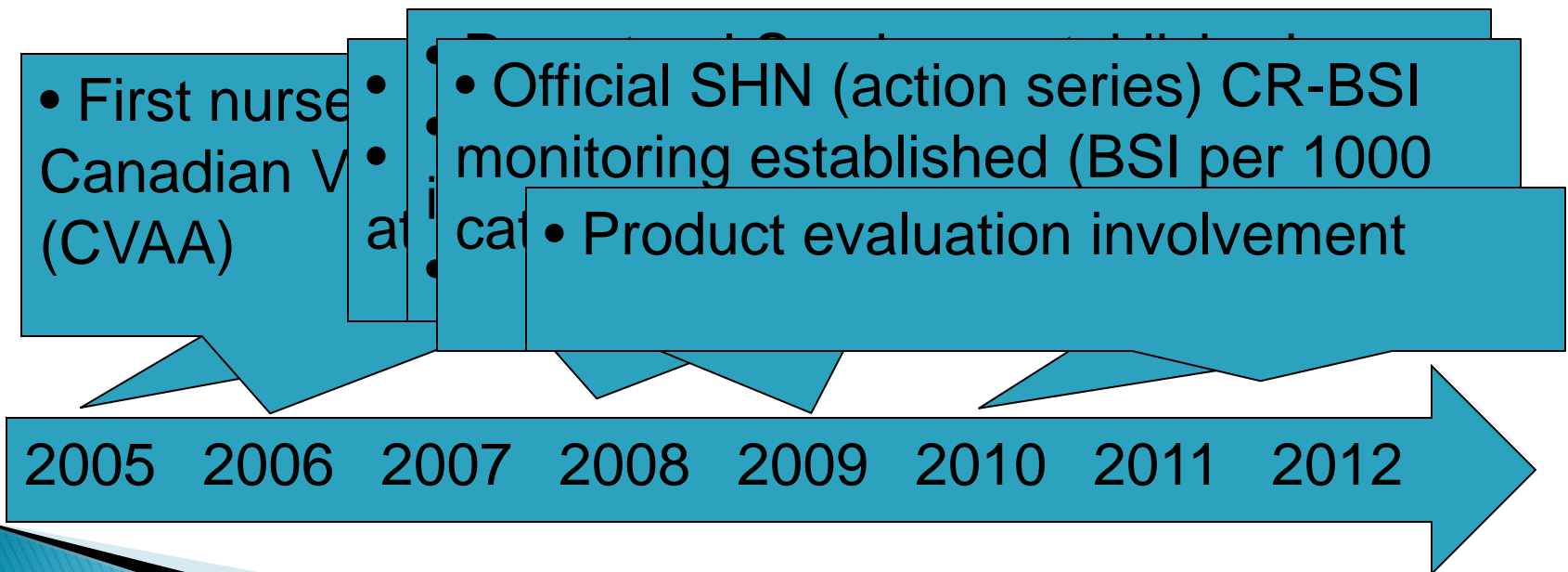


Objectives

1. Understand how the Parenteral Services program at the University Hospital of Northern British Columbia was developed
 2. Appreciate the current structure and makeup of the Parenteral Services program and the staff
 3. Review the technology available to delivery complex medication therapies
 4. Assess the impact of a Parenteral Services program in our community
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Objective #1: Understand how the Parenteral Services program at the University Hospital of Northern British Columbia was developed

safer healthcare
now!



Objective #2: Appreciate the current structure and makeup of the Parenteral Services program



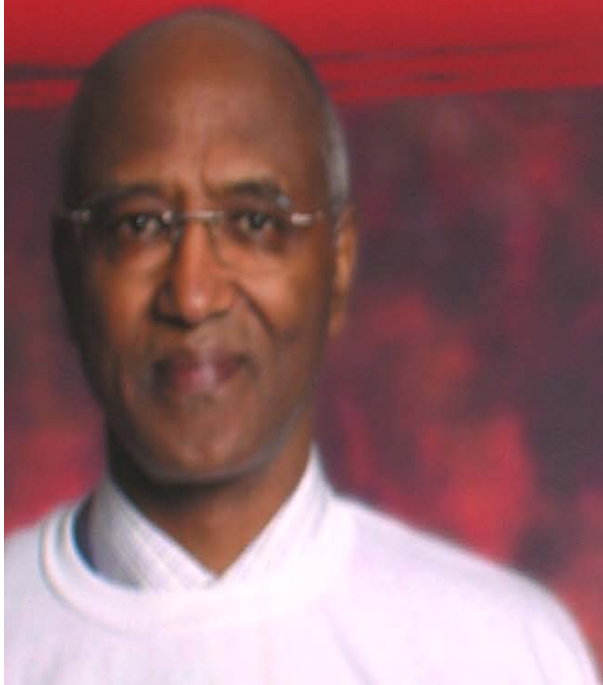


BC Provincial Blood Coordinating Office

A program of the Provincial Health Services Authority

NOT TO KNOW.

— DR. ABU HAMOUR
Infectious Diseases Specialist,
University Hospital of Northern BC
Prince George





INNOVATION

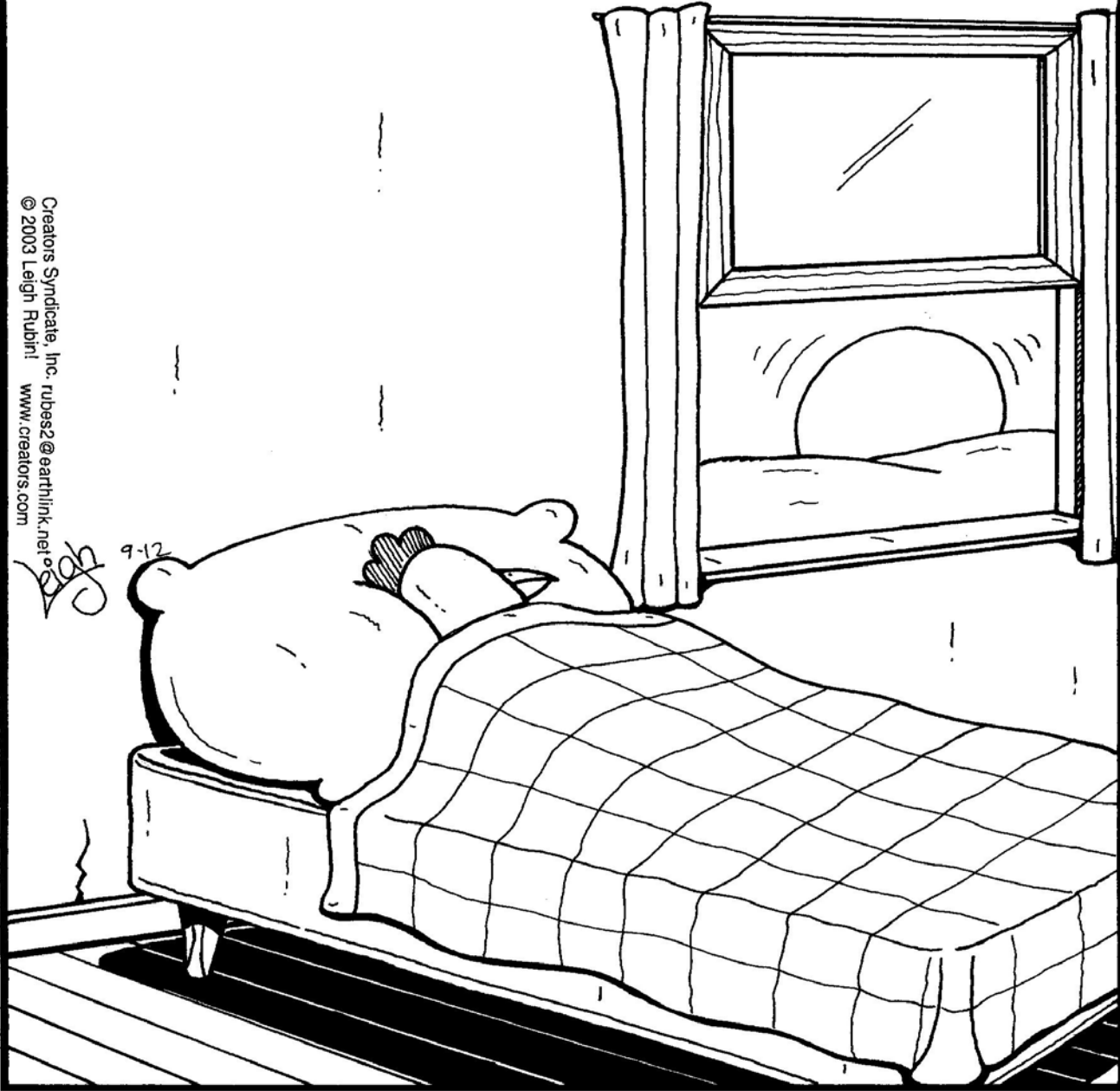


Rubes

By Leigh Rubin

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9-12
LBR



Teenage roosters

Goal: Compliance

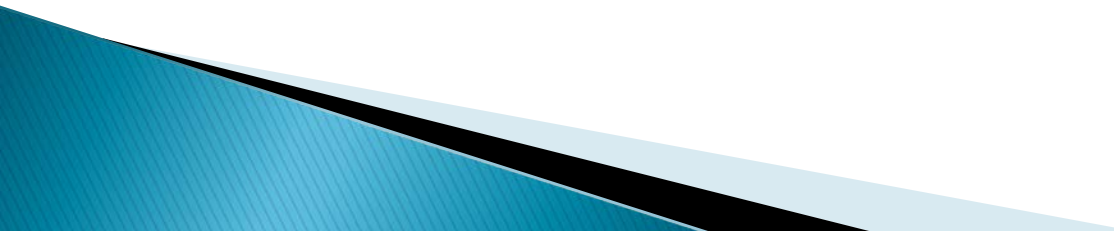
Substitute multidose meds with daily dose meds

Cefazolin  Ceftriaxone

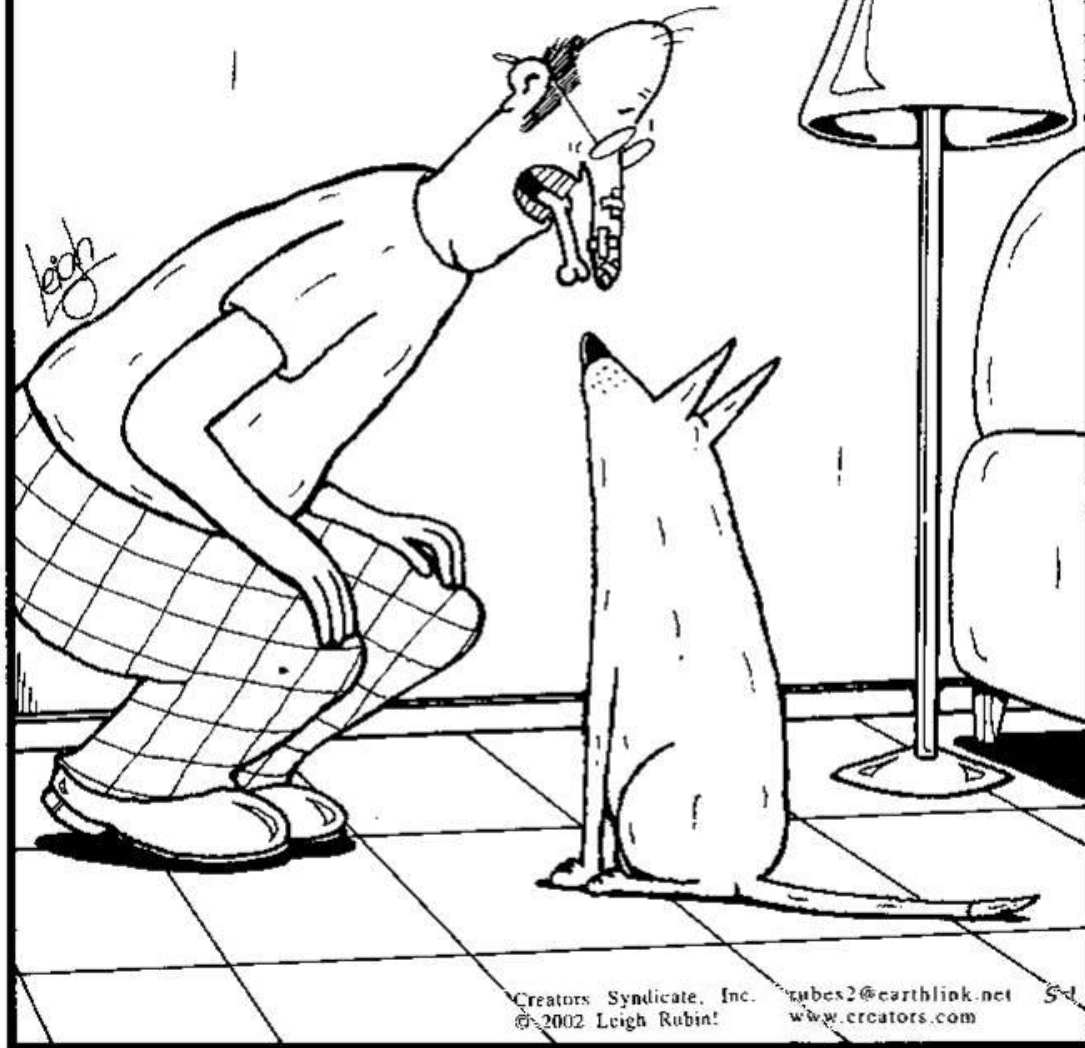
Imipenem  Ertapenem

Vancomycin  Daptomycin

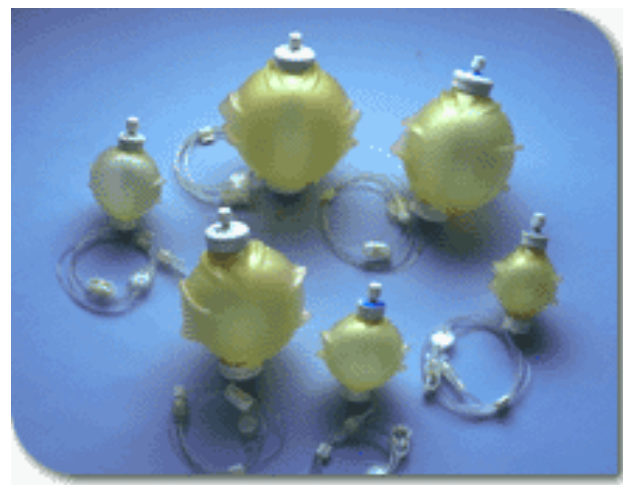
Subcutaneous Immunoglobulin Program

- ▶ For Primary and Secondary Immune Deficiency
 - ▶ Adverse reactions to IVIG
 - ▶ Poor venous access
 - ▶ The convenience of administering at home
- 

Rubes By Leigh Rubin



"OK, boy, let's try it again ... "



Peripherally Inserted Central Catheters



Per-Q-Cath



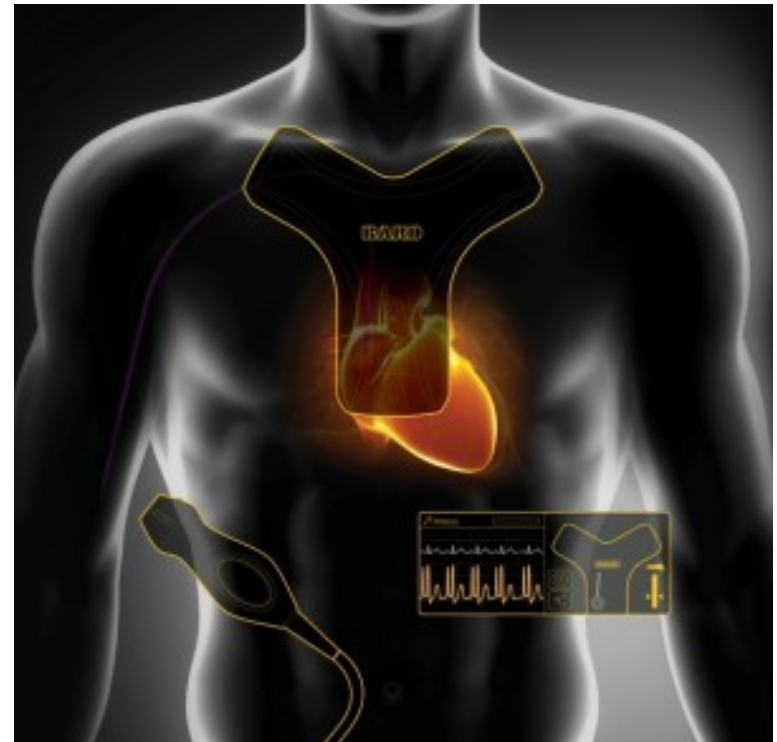
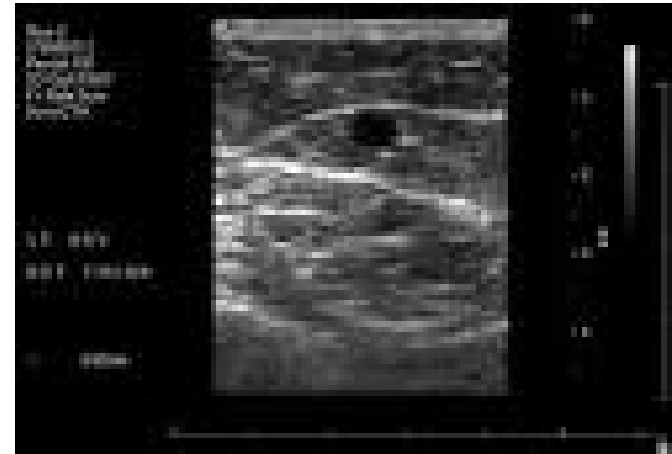
PASV
PICC
(valve is
in the
hub)



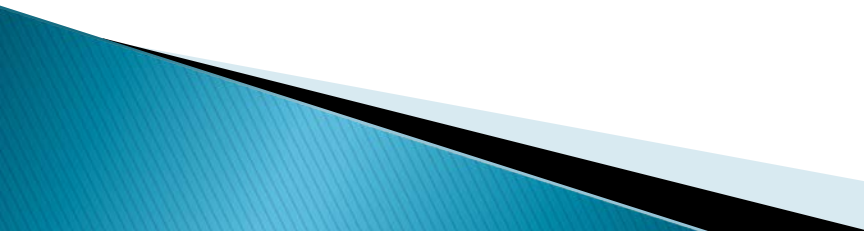
Groshong



PowerPICC



Objective #4: Assess the impact of a Parenteral Services program in our community

- ▶ PICC specific catheter days have increased over 60% since the introduction of the Parenteral Services program
 - ▶ More appropriate use of central lines
 - ▶ Regional Cancer Care Unit/ BCCA
 - ▶ Increase in the number of patients seen every year in the IV therapy program
- 

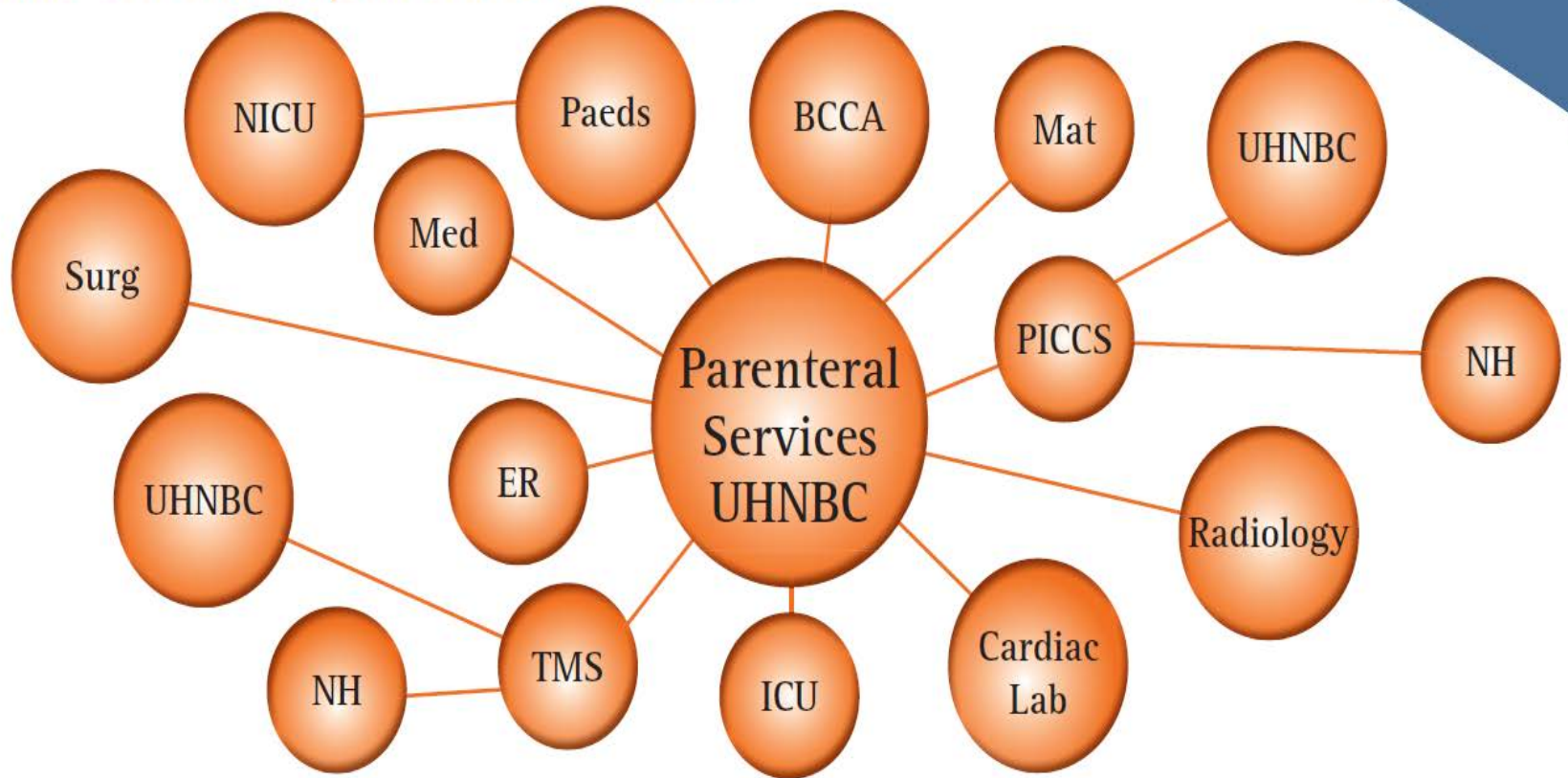
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Program Impact

Parenteral Services continues to provide care for an increasing number of patients each year.

YEAR	NUMBER OF PATIENTS
2009	5375
2009	6749
2010	6568
2011	7540

Diagram 1 Parenteral Services impacts a number of different units and patient care areas



Zero Infections with PICCs

- ▶ CR-BSI rates remains at zero



Product Validation Case Study

Table 1 Catheter Occlusions

Validation Timing	Month 1	Month 2	Month 3	Month 4	Implementation Month	Month 1	Month 2	Month 3	Month 4
Date	June 2011	July 2011	August 2011	Sept 2011	October 2011	Nov 2011	Dec 2011	January 2011	February 2011
Connector Displacement Type	Positive	Positive	Positive	Positive	Positive & Neutral	Neutral	Neutral	Neutral	Neutral
Cathflo use per 1000 catheter days	3.68	6.69	4.92	6.59	n/a	3.55	4.53	3.78	4.33
Four Month Average	5.47				n/a	4.04			

Catheter occlusions decreased by 26% with the implementation of the neutral displacement IV connector.



Positive displacement IV connector



Neutral displacement IV connector

Questions

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