Disappearing Infusion Therapy Teams: Justified or Not?

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Disclosure

• Lynn Hadaway is a paid consultant for Bard Medical.

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Shifting Responsibility

1940
First IV nurse, by MD in some states

1961-62
Reversal of some U.S. laws

1970’s and 80’s
Development of IV teams

1990
Excessive workload for interns, residents

2000’s
Cost containment & disbanding of teams
Desired Goal of Infusion Therapy

- Reaching end of prescribed therapy over days, weeks, months, or years
- With minimal risk to patient and caregivers
- Using correct amount and type of supplies, equipment, resources
- By the most appropriate personnel
Learning Objectives

• Define the concepts of infusion therapy teams and an infusion alliance.
• Explore the published evidence for infusion therapy teams.
• Examine the reasons for the current trend of disbanding infusion therapy teams.
• Investigate the current trends in healthcare that are supportive of the team concept.
• Identify the components of the business plan needed to justify an infusion therapy team.
Infusion Therapy

- Accessing the vascular system is the most invasive procedure performed by nurses at all practice levels.
- Complexity has never been greater:
  - Intra-arterial
  - Intraosseous
  - Intraspinal
  - Subcutaneous
  - Hundreds of medications and fluids
- Infusion therapy is high-risk, high-volume, and problem prone.

330+ million peripheral catheters sold annually in the US\textsuperscript{35}

7 million central venous catheters sold annually in the U.S.\textsuperscript{36}
Infusion Nursing

• A recognized specialty
• Much more than technical tasks!
• Nursing -
  – ANA'S Definition of Nursing\textsuperscript{37}
    • Nursing is the protection, promotion, and \textit{optimization of health and abilities, prevention of illness and injury}, alleviation of suffering through the diagnosis and treatment of \textit{human response}, and \textit{advocacy} in the care of individuals, families, communities, and populations.
What is an Infusion Therapy Team (ITT)?

- No single model works for all settings
- The Continuum of Team Services

![Diagram showing the Continuum of Team Services]

- PIV insertion only
- CVC care
- Complication management
- PICC insertion
- Chemo, nutrition, blood
- Vascular access services
- All insertions, all infusions, all VAD care
What is an ITT?

• Group of nursing staff working collaboratively with all members of an infusion alliance to deliver safe, timely, accurate infusion therapy to all patients.
  – Scope of services is defined based on the identified needs of each institution
    • 24 hours, 7 days a week, full service team
    • A single infusion nurse specialist as a resource
  – Organization may be
    • Centralized or decentralized
    • Stand-alone department, a nursing service, or pharmacy-based group, etc
ITT – Name & Scope

• PICC insertion service
  – Focus exclusively on technical task of PICC insertion
• Vascular access alone
  • Pre-insertion assessment for the right catheter
  • Insertion procedure
  • No involvement during dwell time
• Needed services but focus is usually on insertion procedure
  – Does not address infusion needs after insertion
  – Fate of catheter is directly related to care during dwell
• All functions can be done by the same team
Philosophical Infusion Alliance

- **Alliance**
  - Bond or connection between families, states, parties, or individuals
  - Association to increase common interests of members
- **Infusion Therapy Team** can not operate in isolation
Committees are formal methods to communicate and make decisions among members of alliance

- Pharmacy and Therapeutics
- Infection Control/Prevention
- Value Analysis
- Standards
- Policies and Procedure

Infusion therapy practices should be consistent in all areas of facility

Infusion nurses must serve on these committees
Communities of Practice

- Self-organizing, informal systems
- Exchange and interpret information, retain knowledge, keep organization on “cutting edge”
- Membership includes whoever participates in or contributes to the practice
- Defined by knowledge, not the task
- Participation has great value to members
- Membership produces shared practices due to the collective process of learning
Evidence for ITT

Before 1983 – Peripheral IV starts produced revenue

Now – No revenue for Peripheral IV starts
Evidence for ITT

- Prospective trials of catheter-related complications
- Consistent reduction in phlebitis, suppurative phlebitis, bacteremia with ITT ²,⁴
- Reduced number of venipunctures, increased patient comfort with ITT ⁵
- Cost savings documented with ITT ³,⁶
Evidence for ITT

- 1996 - 3-fold reduction in bacteremia with IV team\(^7\)

**Pre-IV team**
- 45 IV-related bacteremias in 9782 patients (4.6/1000 patient discharges)

**With IV team**
- 16 IV-related bacteremias in 10,841 patients (1.5/1000 patient discharges)

- No IV team service to critical care areas and no change in rates
Evidence for ITT

• Reduced rates of bloodstream infections
  – Before and after IV team data
    • Primary BSI dropped by 35%, Primary BSI from Staph aureus dropped by 51% in 34 month period
    • Assuming 27% attributable mortality rate, 14 lives saved by IV team
  – Randomized controlled trial
    • Physician house staff VS IV team nurses
      – IV 1st attempt success rate 81% by IV nurses, not reported by house staff
      – 3 episodes of CRBSI from house staff-inserted PIV, none by IV team nurses
      – Overall complication rate
        » 21.7% in house staff catheters
        » 7.9% in IV team catheters
Evidence for ITT

• Venipuncture proficiency rates
  – # of attempts in pediatric patients by type of provider

<table>
<thead>
<tr>
<th>Provider</th>
<th># of attempts</th>
<th>Successful #</th>
<th>Unsuccessful #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>416</td>
<td>95 (23%)</td>
<td>321 (77%)</td>
</tr>
<tr>
<td>Staff RN</td>
<td>197</td>
<td>86 (44%)</td>
<td>111 (56%)</td>
</tr>
<tr>
<td>IV nurse</td>
<td>43</td>
<td>42 (98%)</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>
Evidence for ITT

- Randomized sampling of infusion team database during 12 month period\textsuperscript{12}
  - 7-day per week service of consultations for difficult venous access and complication management
    - 10,842 total consults in database
    - 789 analyzed, 250 randomly selected
    - 64\% patients with multiple consults
    - Majority from noncritical medical and surgical units
    - 57\% of patient’s veins recorded as “visible & poor” or “nonvisible, nonpalpable”
      - 15\% with restrictions such as AV fistulas, arm trauma/surgery
  - Identifies educational and performance improvement needs by unit
Evidence for ITT

• Reported use of PDA for infusion services\textsuperscript{13,14}
  – Gather data on team services
  – Document units, types of calls, patient interventions and responses, patient outcomes
  – Identified educational needs on specific units
    • Objective performance improvement data
  – Facilitates objective decision-making
Evidence for ITT

- Quality improvement project using published evidence to create a venous access team\textsuperscript{15}
  - Created specially trained team for PIV placement
  - Created venous access algorithm for catheter decision-making
  - IV nurses for educational support
  - Developed tracking mechanism to evaluate outcomes
Evidence for ITT

• Process for proposal creation, data collection to support team concept\(^{16}\)
  – Insertion attempts for PIV decreased from 6 per patient to maximum of 2, cost savings of $27 per patient
  – Phlebitis rates dropped by 2%
  – Fiscal responsibility important, but emphasized patient safety and satisfaction is central to team decision
Evidence for ITT

• PIV catheter insertion success study
  – 34 RN-volunteers collected self-reported data
    • 339 PIV insertions, 260 successful (77%)
    • Mean insertion difficulty 4, on 0-10 scale
    • Patient variables influencing success rates
      – Vein visibility and palpability
      – Skin being tough or dark
      – Vein rolling, resistant to puncture and threading
    • Nurse-related variables influencing success rates
      – More experience, older, higher self-rated skills
  – PIV insertion one of most technically difficult procedures performed by nurses
  – Researchers recommended IV therapy teams
Other Clinical Outcomes

- IV medication errors
  - 73,000 reported to USP over a 5 year period
    - 3-5% judged as harmful\textsuperscript{18}
- Standardized approach to IV drug infusions
  - Many changes in policies and purchasing\textsuperscript{19}
- IV medication errors with infusion pumps
  - 426 medications observed through "smart" pump
  - 285 (66.9%) with 1 or more errors; 389 total errors
    - 37 rate deviation errors, 3 of these due to programming error
    - Only 1 error prevented by pump technology
    - Pumps must be integrated with other information technology to produce meaningful safety improvements\textsuperscript{20}
Other Clinical Outcomes

- Pooled mean of central line associated BSI rates 2006-08
  - 1.6 to 4.6 per 1000 catheter days\textsuperscript{21}
- Peripheral catheter complications are under-evaluated\textsuperscript{22}
So Why Are Teams Disappearing?

- Cost reduction
  - Labor costs
    - Shifting responsibility for tasks from specialty nurses to generalist nurses
      - Peripheral catheter insertion
      - Dressing changes
  - Supply costs
    - Removal of products perceived to be ‘unnecessary’
      - Most with good clinical evidence demonstrating improved outcomes
So Why Are Teams Disappearing?

• Work Redesign - the mantra of the 1990’s
  – Recommended by process engineers ignoring the human element
  – Doing the same or more work with fewer people
  – Increased stress, workforce dissatisfaction
  – Some infusion teams disbanded during this movement
So Why Are Teams Disappearing?

- Redesigning the work of infusion therapy today?
- Successful models of work redesign
  - Developed by front-line workers
  - Must consider
    - Needs of patients
    - Staff skills
    - Competencies
    - Characteristics of hospital\textsuperscript{23}

\textit{Insanity: doing the same thing over and over again and expecting different results.}
So Why Are Teams Disappearing?

- Team reduction from 11 to 2 nurses in a 200-bed VA Medical Center over 7 months
  - Changing roles from care provider to education, consultation, quality improvement processes
  - Positive aspects reported
    - Expanded services to ICU, reduced CRBSI rates
    - Improved outcome data collection processes, documentation of IV procedures
    - Improved opportunities for nursing research
    - Increased use of midlines, plan for difficult peripheral insertions
    - Product introductions with savings for nursing time
    - Greater opportunities for staff development
    - Reduce costs
  - Negative aspects reported
    - No data collection of short peripheral catheters
    - Increased patient complaints due to increased number of venipuncture attempts
    - Decrease in compliance with published standards
    - Increased demand on IV team during transition
    - Demoralized IV team
Lessons for Infusion Team Success

• **Be prepared for challenges**
  – May come from anywhere
    • Nurse-consultants from hospitals without teams
    • Past experiences, beliefs, preferences
Lessons for Infusion Team Success

• **It is all about the DATA**
  – Outcome data, not just # of procedures
    • Reducing rates of infection, air emboli, blood incompatibility, infiltration/extravasation
  – Proficiency data
    • Reduces time and supply costs
  – “Highly specialized skills by fewer people means better outcomes”
Lessons for Infusion Team Success

• **Nursing staff dissatisfaction**
  – Staff nurses expected to become infusion experts
  – Expected increased pay and decreased patient assignments
  – Will contract renegotiation be required?
Lessons for Infusion Team Success

• Know the patient satisfaction measurement processes
  – What questions are asked
    • How would you rate the competence of the person starting your IV?
    • How would you rate the courtesy of the person starting your IV?
  – For which patients, what departments
  – What are the results
Lessons for Infusion Team Success

• Decisions made by people who do not understand infusion therapy processes
  – Learn to translate to improve comprehension, understanding
  – Learn to speak their “language”
    • Finance, budgeting, costs
    • Staffing
    • Reimbursement issues
      – Payer mix
Lessons for Infusion Team Success

• **Market the Infusion Team as Experts**
  – Standard colors for easy recognition
  – A logo for the team
  – Marketing message should reach
    • Patients and families
    • Internal clients - all nurses in all departments served, physicians
    • External clients - other agencies, hospitals within the same organization, physician offices
  – DO NOT hide or become secluded
Supporting Trends

- Patient Safety
- High Reliability Organizations
- Value-based Systems
- Changing Reimbursement Structures
- Growing emphasis on teams and teamwork
Patient Safety

- Freedom from accidental or preventable injuries produced by medical care
- Based on Systems Thinking
  - Safety depends on anticipating errors and preventing or catching them in the system before they lead to harm
- Regarded as a subset of Quality
- Culture of safety
  - A serious commitment to safety that permeates all levels of an organization
    - Primary care, frontline personnel to executive level to board of directors
Patient Safety

### Infusion therapy injuries
- Infection
- Air, catheter, or thrombus emboli
- Infiltration/extravasation
- Medication errors
- Blood incompatibility

### Outcomes of these injuries
- Delayed therapeutic response
- Complex regional pain syndrome
- Surgical scarring, loss or limitation of arm function
- Amputation
- Persistent vegetative state
- Death!!
Patient Safety

- **Swiss Cheese Model of organizational accidents**
  - Cannot perfect human behavior
  - Emphasis on shrinking the holes and creating multiple layers of protection
  - Errors are mostly unintentional
  - Management cannot control what the nurse did not intend to do
Patient Safety

- Principles derived from other groups operating under hazardous conditions with very few adverse events

- Air traffic control
- Nuclear power plants
- Naval aircraft carriers
Patient Safety

• Adverse outcomes may be common in healthcare
  – Patient did not respond to treatment as anticipated

   Adverse event - injury or harm resulting from care
   • 2 attempts at venipuncture

   Preventable adverse events plus error
   • Multiple unsuccessful venipuncture attempts

   Preventable adverse events
   • More than 2 attempts to establish 1 peripheral IV site
<table>
<thead>
<tr>
<th>Patient Safety – Trigger Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of catheter-related bloodstream infections</td>
</tr>
<tr>
<td>Stat or urgent PICC insertions</td>
</tr>
<tr>
<td>Excessive use of peripheral catheters indicating multiple unsuccessful attempts</td>
</tr>
<tr>
<td>Orders for vesicant antidotes or thrombolytic agents</td>
</tr>
<tr>
<td>Surgical procedures for debridement, fasciotomy related to compartment syndrome from infiltration</td>
</tr>
<tr>
<td>Surgical procedures for amputation related to intra-arterial injection</td>
</tr>
</tbody>
</table>
High Reliability Organizations (HRO)

• Reliability in health care
  – Patients receiving the intended tests, medications, information, and procedures at the appropriate time and in accordance with their values and preferences.\textsuperscript{25}
Characteristics of HRO

- Preoccupation with failure
- Reluctance to simplify
- Sensitivity to operations
- Commitment to resilience
- Deference to expertise
Value-based System

Value = relationship between cost and quality

Minimizing cost of each intervention
- Limiting resources
- Restricting services
- Shifting Cost
- Creates false “savings”

Maximizing value over entire care cycle
- Restructuring delivery system
- Mandated outcomes measurement
Changing Reimbursement

• Hospital revenue
  – More than 90% from patient care services
  – Cafeteria, parking, investments, grants, donations

• Current payers for patient care services
  – Government - the single largest payer group
    • Medicare, Medicaid
    • Other direct government payments
  – Insurance companies
  – Employers
  – Individuals
Changing Reimbursement

Cost-Based Reimbursement
Before 1983

Prospective Payment Systems
• Began 1983; fixed fee based on DRGs

Pay for Performance
• Quality improvement
• Financial performance
• Patient outcomes
Changing Reimbursement

• **Value-Based Purchasing**
  – Hospital Acquired Conditions and Present on Admission Indicators
  – High cost, high volume, or both
  – Assigned to a higher paying DRG when present as a secondary diagnosis
  – Reasonably prevented through application of evidence-based guidelines

• 10 preventable conditions on original list for 2008
• 3 conditions are infusion related
  – Bloodstream infections - New ICD-9 code 999.31
  – Air emboli
  – Blood incompatibility

• [http://www.cms.hhs.gov/HospitalAcqCond/](http://www.cms.hhs.gov/HospitalAcqCond/)
Teams and Teamwork

• Team- 2 or more persons
  – With specific roles
  – Perform interdependent tasks
  – Are adaptable
  – Share a common goal\textsuperscript{27}

• Critical to patient safety
• Teams make fewer mistakes than individuals\textsuperscript{26,27,28}
• Provides continuity
Become a Nurse Entrepreneur

• Nursing leaders who take responsibility for introducing innovative ideas within the organization or independently
  – Requires risk-taking, negotiation and business development skills
  – Written and oral communication skills to create the business case and business plan

• Health care is a business!
Business Case

• A position to justify the start-up of a project
  – What is/are the problem(s) being addressed?
    • Proficiency with PIV insertion, reducing the number of restarts, reducing the amount of supplies used
    • Reducing CRBSI, air emboli, infiltration/extravasation injuries
    • Improving patient satisfaction
  – What is being proposed?
    • 24/7/365 infusion therapy team
    • Limited hours of operation
    • Scope of services proposed
  – What are the costs and benefits of the project and alternative solutions?
  – Should an investment be made in this project or initiative?
Business Plan

- Detailed project plan
- Project proposal from the Business Case
- Define the services
- Market analysis
- Rough financial plan
- Detailed financial plan
- Detailed operations plan
Business Case and Plan

• Requires communication with C-Suite

CEO – chief executive officer

CFO – chief financial officer

CNO – chief nursing officer

COO – chief operations officer

• Nurses must learn the language of finances
• Communication with C-Suite
  – Must know how organization gets paid for services
    • Who pays
      – Government
      – Insurance companies
      – Self-pay
      – Charities
    • By what method
      – Traditional fee for service
      – Capitated fee
        » DRG
        » HMO
      – Pay for performance
    • Cost allocation
    • Budgeting processes
    • Value added by IV team
• Emphasis is now on cost containment, but do not forget revenue generation from some procedures
  – PICC insertion
Business Case and Plan

• What is the project
  – Continued justification for an existing infusion therapy team
    • Must stay one step ahead to be prepared for challenges
  – Initiation of a new infusion therapy team

• Environmental analysis
  – External factors
  – Internal factors

• Alternatives and related costs/benefits
Business Case and Plan

### External factors

- Demographic changes
- Regulatory changes
- Supply of workers
- Technological changes
- What other nearby hospitals are doing

### Internal factors

- Enhance compliance with facility’s mission, vision
- Alignment with management’s priorities
- Key decision-makers
- Facility’s financial status
- Compatibility with organizational goals
- Facility’s case mix
Business Case and Plan

• Begin with the current outcomes
• Emphasize demand for service with internal data
  – Documented complication rates
    • CRBSI, air emboli, infiltration/extravasation injuries
    • Lawsuits related to these outcomes
  – Patient satisfaction or complaints
    • Excessive venipunctures
    • Pain, discomfort
Business Case and Plan

• Begin with the current outcomes
• Emphasize demand for service with internal data
  – Venipuncture proficiency rates - # of attempts to start 1 IV site
    • # of catheters, skin antiseptics, others supplies
    • Excessive nursing time to perform multiple attempts
  – Frequency of restarts needed and why
    • Improper catheter/site selection
    • Lack of adequate catheter stabilization
    • Improper medication administration
  – Treatment of complications
    • Costs, additional length of stay
  – Medication errors
    • Root cause analysis
      – Lack of adequate staffing
      – Infusion pump issues
Business Case and Plan

• Sell the plan through cost-benefit analysis
  – Labor
  – Supplies
  – Improved quality of care
  – Reduced length of stay
  – Risk management
  – Market advantage
  – Convert these outcomes to $$$$$$
    • Reinforce the differences based on quality outcomes produced by infusion nurses
Business Case and Plan

• Teach CFO financial implications of
  – # of procedures performed
  – # of complications

• Must be converted to dollars saved or revenue generated

• Provide facts on how to minimize hospital’s risk
Business Case and Plan

• Be prepared to address all questions
  – Anticipate all questions from all sides of the proposed plan
  – “The right thing to do” is not sufficient
  – How can your proposal
    • Reduce costs
    • Reduce waste
    • Improve patient satisfaction
    • Improve patient flow through the system
  – Presented in comprehensive written form

• Quality does not increase cost!
Cost Examples- CR-BSI

- In a 2006 study, 54 patients with CR-BSI in medical and coronary intensive care units in US hospital

- Study period from 2002 to 2005

<table>
<thead>
<tr>
<th>Average payment</th>
<th>Average costs</th>
<th>Average loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$64,894 (range, $4546 to $299,318)</td>
<td>$91,733 (range, $15,565 to $353,205)</td>
<td>$26,839 Total loss on 54 patients $1,449,306</td>
</tr>
</tbody>
</table>
Cost Examples - PIV Insertions

- $32 - Operational costs for insertion of peripheral catheter\textsuperscript{31}
  - \( \sim \$40 \) Adjusted for inflation in 2010
    - 3\% increase per year for inflation

- A 2005 study reported\textsuperscript{32}
  - 219 patients required 219 attempts
    - Operational costs = \$8760 for insertion
    - \( \sim \$40 \) per patient
  - 118 patients required 295 attempts
    - Operational costs = \$11,800 for insertion
    - \( \sim \$100 \) per patient

- Not a reimbursable expense
  - Contain costs by using the least amount of labor and supplies
Cost Examples - PIV as % of DRG

• 2.18 attempts for successful peripheral catheter insertion\(^{33}\)

• $87.20 for one successful peripheral catheter ($40 \times 2.18)

• DRG payment for respiratory infections and inflammation with complications = $4521 in 2008
  – Average length of stay = 7.6 days in 2008
  – 5 peripheral sites \(\times\) 2.18 = 10.9 attempts
  – 10.9 attempts \(\times\) $40 per attempt = $436 just to maintain venous access or 9.6% of DRG
## Cost Examples - Prefilled Syringes

Median RN salary 2006 = $57,000 or $27.40 per hour

<table>
<thead>
<tr>
<th>Nurse-filled syringe</th>
<th>Prefilled syringe</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 2 min, 37 seconds for filling, labeling, flushing</td>
<td>= 1 min, 27 sec for flushing</td>
</tr>
<tr>
<td>Labor + supplies = $1.20</td>
<td>Labor + supplies = $0.92</td>
</tr>
</tbody>
</table>
### Cost Examples - PIV Stabilization Device

<table>
<thead>
<tr>
<th>Item</th>
<th>Costs of PIV with tape</th>
<th>Cost of PIV with Stabilization device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catheter</td>
<td>$1.75</td>
<td>$1.75</td>
</tr>
<tr>
<td>Extension set, needleless connector</td>
<td>$1.90</td>
<td>$1.90</td>
</tr>
<tr>
<td>Start kit</td>
<td>$1.00</td>
<td>$1.00</td>
</tr>
<tr>
<td>Gloves</td>
<td>$0.05</td>
<td>$0.05</td>
</tr>
<tr>
<td>Prefilled saline flush syringe</td>
<td>$0.37</td>
<td>$0.37</td>
</tr>
<tr>
<td>Catheter stabilization device</td>
<td>$0</td>
<td>$3.25</td>
</tr>
<tr>
<td>Labor*</td>
<td>$6.85</td>
<td>$6.85</td>
</tr>
<tr>
<td>Overhead**</td>
<td>$5.96 to 11.92</td>
<td>$7.59 to 15.17</td>
</tr>
<tr>
<td>Total</td>
<td>$17.88 to 23.84</td>
<td>$22.76 to $30.34</td>
</tr>
<tr>
<td>100 patients</td>
<td>$1788 to 2384</td>
<td>$2276 to 3034</td>
</tr>
<tr>
<td>Restart rate, tape 70.7%</td>
<td>$3052 to 4069</td>
<td></td>
</tr>
<tr>
<td>Restart rate, Statlock 16.6%</td>
<td></td>
<td>$2654 to 3538</td>
</tr>
</tbody>
</table>
Cost Examples

• Infusion Team must operate under a budget with a revenue and expense cost center\(^1\)
  – Work closely with billing/reimbursement specialist

  – Annual review & updates to current procedures and charges

  – What gets charged is NOT what is reimbursed!!
<table>
<thead>
<tr>
<th>Procedure</th>
<th>UB-92</th>
<th>CPT 5</th>
<th>FY09 New Price</th>
<th>Medicare fee payment</th>
<th>Medicare APC payment</th>
<th>Peer mkt avg price</th>
<th>MSA mkt avg price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood draw</td>
<td>300</td>
<td>36415</td>
<td>$28.00</td>
<td></td>
<td></td>
<td>$22.27</td>
<td>$20.25</td>
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<tr>
<td>PICC insertion</td>
<td>361</td>
<td>36569</td>
<td>$1194</td>
<td>$666.42</td>
<td>$1768</td>
<td>$1525.3 0</td>
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<tr>
<td>single lumen</td>
<td></td>
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<tr>
<td>PICC insertion</td>
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<td>double lumen</td>
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<tr>
<td>Declotting</td>
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<td>36593</td>
<td>$532</td>
<td>$151.64</td>
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<tr>
<td>catheter</td>
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<td></td>
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</tbody>
</table>
**Future Direction**

**Restore what was**
- Territorial IV teams fighting turf battles with other nurses
- Teams only doing peripheral venipunctures
- Teams doing ALL IV therapy

**Reform what is**
- Interdisciplinary teams
- Organized to meet patient needs 24/7/365
- Addressing all infusion needs, not just vascular access
The Future of Your Team

• What are your concerns?
• Your ideas?
• How would you handle a challenge from these consultants?
References: