

Starting University Clinical Careers Efficiently, Scholarly, and Successfully

Creating Scholarship in the Clinic

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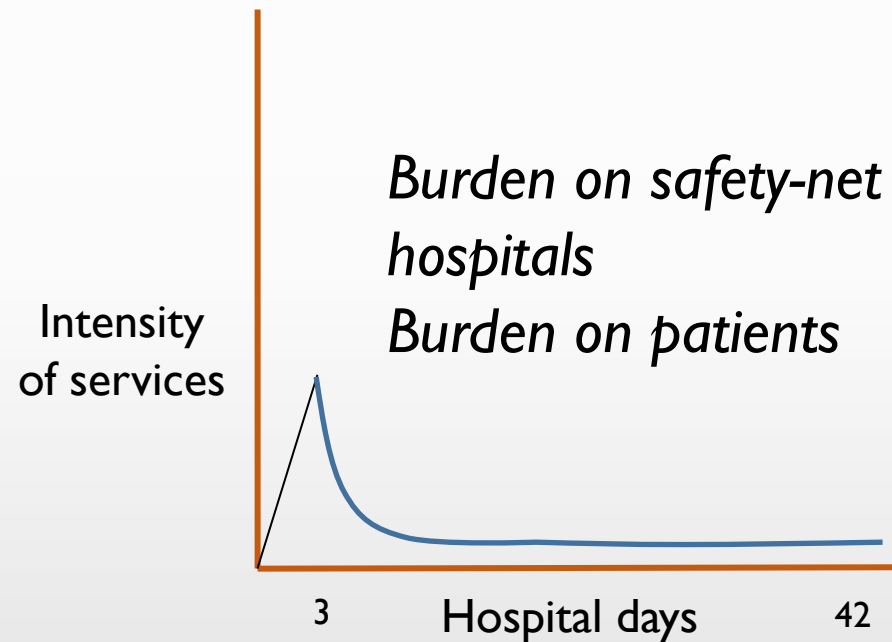
Clinical Work and Career Development

- **2009:**
 - Joined Infectious Diseases Faculty Assistant Professor on CE Track
 - 7 HIV clinics; 1 OPAT clinic; Inpatient Consults
- **2016:** LEAD Program
- **2020:**
 - Medical Director for ID/OPAT Clinic 2010-present
 - Associate Vice Chair of Innovation and High Value Care
Department of Internal Medicine
 - Chief Innovation Officer Parkland
 - Clinical Research NIH: COVID Testing in Vulnerable Populations

OPAT: Outpatient Parenteral Antimicrobial Therapy



Addressing a Clinical Problem



“Self-care” as Proposed Solution

- S-OPAT
- Let patients self-administer by gravity

Challenges

- 4th grade Literacy
- Transportation
- No Home Visits
- Infusion technique
- Compliance including weekly follow-up
- Maintenance of long term IV antibiotic care

Teach and Test at Bedside



Giving Your IV (Intravenous) Antibiotics Through Your PICC Line At Home



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Your doctor wants you to have antibiotics through your PICC line at home. These antibiotics treat the infection in _____ weeks. You will need to give yourself these antibiotics for _____ weeks.

During this time, you will have appointments at the Parkland clinic. It is very important for you to come to these clinic appointments because this is when we will check your blood, and check to be sure you are getting the right amount of the antibiotic. We will also put a fresh, sterile (no germs) dressing over your PICC line 1 (one) time each week at your clinic appointment. Your nurse will check that there is no infection at the place where the tube goes into your body.

Your first appointment is: _____
If you cannot come to this appointment, call 214-590-5061 to make another appointment.

Getting ready to give your antibiotic through your PICC line:

- Clean off a clean, dry, flat place with alcohol, to put your supplies on, or put clean, dry paper towels down before you put your supplies down.
- The supplies you will need to give your antibiotic through your PICC line are:
 - IV medicine bag
 - IV tubing
 - IV tubing Extension set
 - The blue Microclave cap
 - 2 pairs of gloves
 - Alcohol pads



... revise estos mismos y asegurarse de que son claros o transparentes y que no tiene manchas o partículas flotando en él. Si no es claro, no lo use, tráigalo a la clínica en la próxima cita. Utilice otra bolsa que está claro.

¿Mantenga este antibiótico en el refrigerador? Sí o No

Cierre la pinza en el tubo o línea y ponga la punta en el puerto de salida de la bolsa intravenosa de antibióticos.

Apriete la cámara de goteo para iniciar el flujo del antibiótico IV. Llene la cámara de goteo a la mitad.

Cuelgue la bolsa a un nivel más alto que su cabeza.

Abra lentamente la pinza para que el IV antibióticos llene el tubo o línea. Esto empuja todo el aire del tubo.

Cierre la válvula con la ruedita o disco.

Recuerde - no deje que la punta del tubo toque nada.

El nombre de su antibiótico IV, que debe ser: _____
necesita es: _____

Después de haberlo mezclado, verifique y asegurese de que está claro o transparente y que no tiene manchas o partículas flotando en él. Si no está claro o transparente, no lo use. Tráigalo a la clínica en su próxima cita. Utilice otra bolsa que está claro.

¿Mantenga este antibiótico en el refrigerador? Sí o No

Mézclelo cada dosis al momento antes de usarlo.

© Giving Your IV Antibiotics At Home 12/11 Pág. 2 de 7



PATIENT/FAMILY COMPETENCY

Patient/Family must complete minimum of two return demonstrations. MUST show at least one satisfactory return demo. Patient discharge is to be canceled if patient/caregiver is unable to demonstrate a competency marked with an **.

Caregiver Name: _____ Relationship to Patient: _____

S = Satisfactory N = Needs more practice U = Unsatisfactory

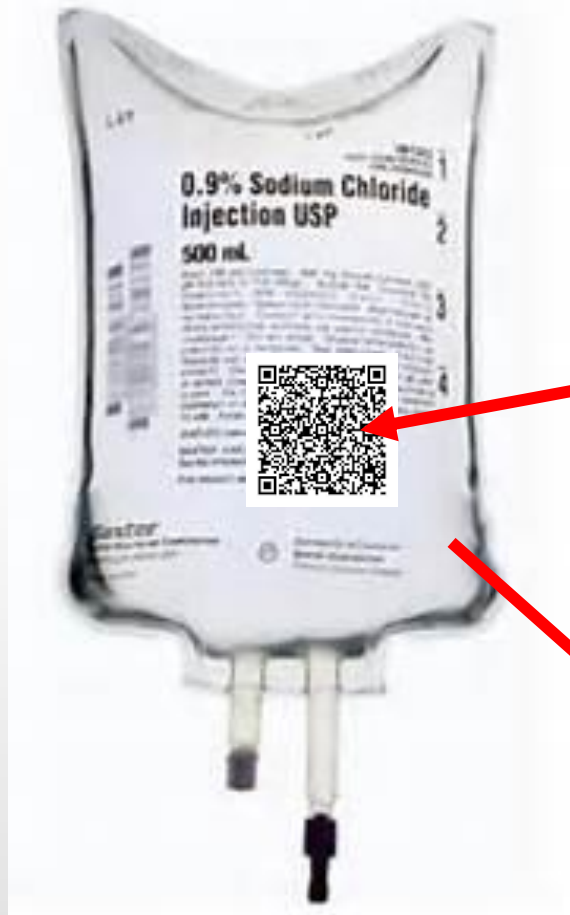
Nurse to date and initial items

| ITEM | INITIAL DEMO BY | RETURN DEMO | RETURN DEMO | RETURN DEMO |
|---|-----------------|-------------|-------------|-------------|
| Date of demonstration | | | | |
| State reason for IV antibiotics: "Treat infection in _____" | | | | |
| State length of treatment: _____ weeks | | | | |
| State reason for clinic visits and frequency ("PICC dressing change, lab work, weekly") | | | | |
| Locate phone number to order antibiotic (last page handout "MAR"; 214 590-8711 option "home antibiotics") | | | | |
| Clean flat surface with glass cleaner/alcohol and/or lay out clean paper towel for equipment | | | | |
| Identify equipment used: PICC line, IV tubing, extension set, adaptor, alcohol pad, IV med bag** | | | | |
| State why washing hands important when accessing line | | | | |
| Demonstrate proper handwashing or use of alcohol hand rub** | | | | |
| Check the label on med bag (patient name, med name, exp. date) | | | | |
| Label IV tubing/check label on IV tubing; change every 3 days or if spikes have touched anything | | | | |

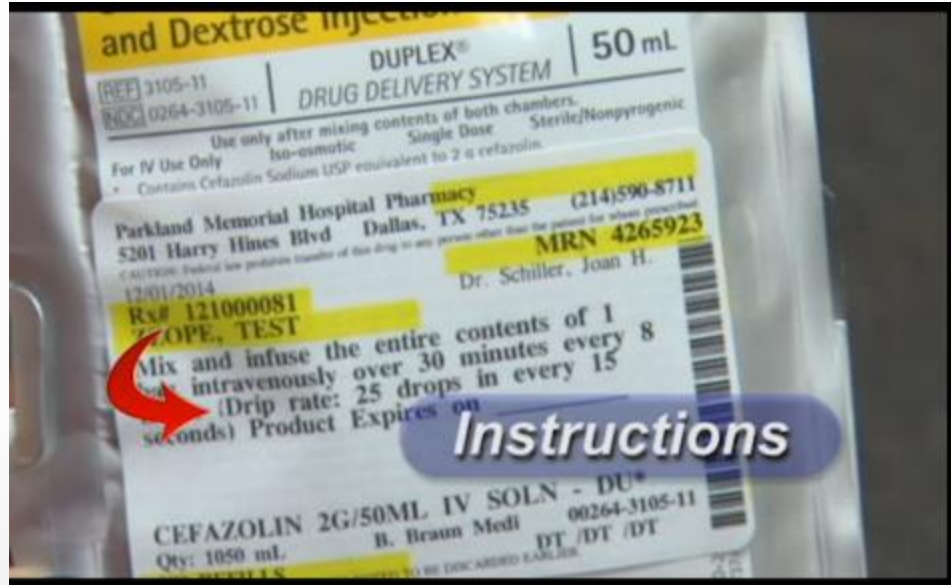


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Refining Methods



Preparation of IV Antibiotic



Infusion at Home



Scholarly Work: 4 Year Clinical Outcomes



RESEARCH ARTICLE

Self-Administered Outpatient Antimicrobial Infusion by Uninsured Patients Discharged from a Safety-Net Hospital: A Propensity-Score-Balanced Retrospective Cohort Study

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¹ Division of Infectious Diseases, Department of Internal Medicine, University of Texas Medical Center, Dallas, Texas, United States of America, ² Parkland Health and Hospital System, Dallas, Texas, United States of America, ³ Division of Epidemiology, Department of Internal Medicine, University of Texas Medical Center, Dallas, Texas, United States of America

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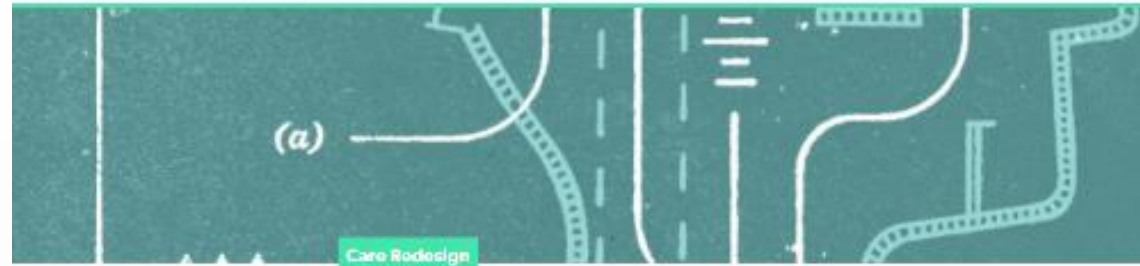
- 30 day readmission **47% lower** for “self-care” population vs pts receiving standard of care
- **27,666** inpatient days avoided **~\$40,000,000**
- *Improved resource utilization by freeing beds for acutely ill*

Health Care Innovation Doesn't Have to Be Driven by Profit

by Frederick P. Cerise, MD
WCHSHEM, 2010



Achieving the Triple Aim Through Disruptive Innovations In Self-Care
Bhavan KP, Agrawal D, Cerise F.
JAMA. 2016 Nov 22;316(20):2081-2082.



Teaching Uninsured Patients to Self-Administer IV Antibiotics at Home

Kavita P. Bhavan, MD, MHS,
Robert Haley, MD & Frederick P. Cerise, MD, MPH

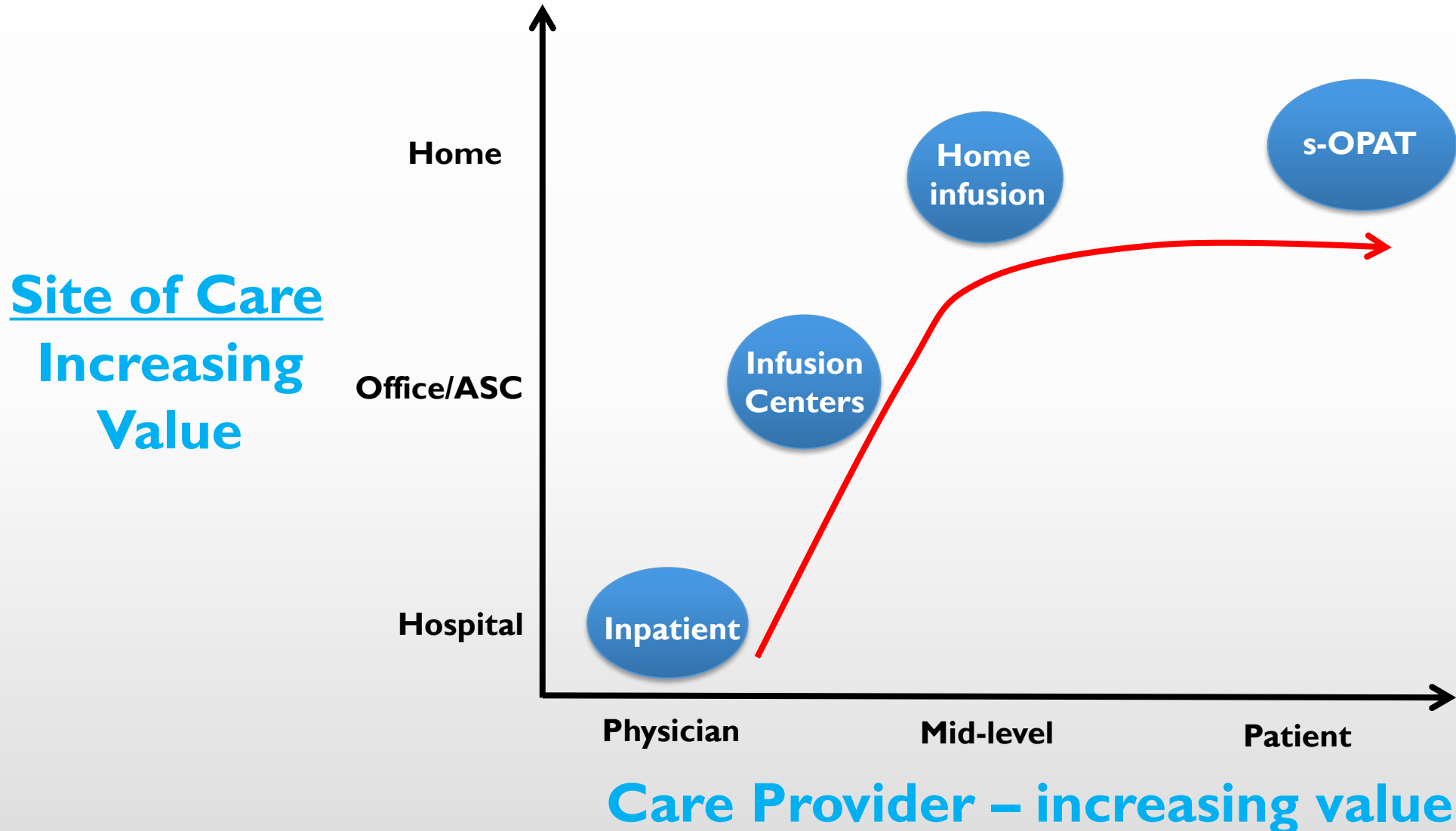
U.S. Emory Medical Center, Harvard Health and Hospital System

The Value of Teaching Patients to Administer Their Own Care

Innovations in Care Delivery



Long term intravenous antibiotic treatment



Opportunities from Scholarly Work in Clinic

- Center for Innovation and Value at PHHS created to:
 - Expand Innovation in Care Delivery
 - Expand High Value Care
 - Enhance Clinical Research in Health Disparities

Collaborative Research
University of Chicago
Midwestern States



RADx Underserved Populations (RADx-UP)

RADx-UP will work to understand and reduce disparities for vulnerable populations who are disproportionately affected by COVID-19.



Summary

Importance of Scholarly Work from Clinic

Physicians (and other frontline providers) caring for patients are:

- In positions to recognize challenges and limitations encountered in daily clinical practice
- Able to:
 1. Define problems
 2. Propose solutions
 3. Study clinical outcomes
 4. Share knowledge in peer reviewed literature
 5. Collaborate with others: QI and clinical research
 6. Lead efforts to improve delivery of care

Creating Scholarship in the Clinic

Summary of Key Points

Don't be afraid! Embrace opportunities.

Your passion for delivering outstanding patient care can translate into scholarly products.

Elevating patient care through innovations can and **must** be published.

If you have an administrative role, leverage it for time and access needed for progress in research.

Connect to your Department's quality, innovation, and think tank groups with resources.

Additional Information and Resources

1. [Center for Innovation and Value at Parkland](#)
2. [Strategies for Successful Patient Oriented Research: Why Did I \(not\) Get Funded?](#)
3. [Advantages and Challenges of Working as a Clinician in an Academic Department of Medicine: Academic Clinicians' Perspectives. *J Grad Med Educ.* 2010 Sep; 2\(3\): 478–484.](#)

Starting University Clinical Careers Efficiently, Scholarly, and Successfully Questions? Email me!



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