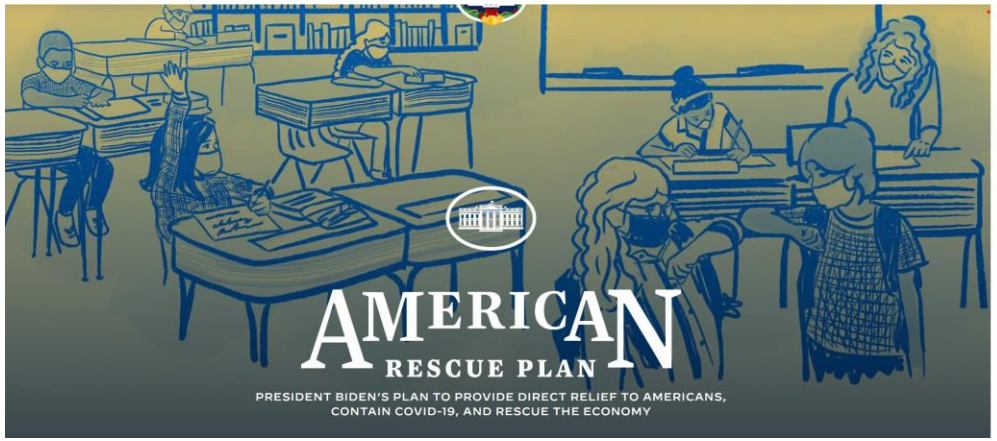
North Carolina SPICE
Statewide Program for Infection Control & Epidemiology

Antibiotic Stewardship and Best Practices in Transitions of Care

February 21, 2024

North Carolina Clinical Antibiotic Stewardship Partners

Grant activities
Strengthening HAI/AR Program Capacity



First year October 1st-July 31st

- **Project activities start February - July**

Second year August 1st-July 31st 2024

- Funded under the *American Rescue Plan Act* of 2021
- Broadly intended to provide critical resources to state, local and territorial health departments
  - Support of a broad range of healthcare infection prevention and control (IPC) activities
  - Epidemiologic surveillance related activities to detect, monitor, mitigate and prevent the spread of SARS-CoV-2
  - Address healthcare associated infections (HAI)
  - Antimicrobial resistance (AR)

This project aims to provide access to stewardship expertise especially for settings where inequities in stewardship support exist. Antibiotic stewardship activities prioritize patient safety and quality improvement through engagement with a variety of partners. Stewardship expertise will be critical to support healthcare settings including hospitals, outpatient facilities and nursing home communities.

Agenda

11:30 - 12	-	Registration, lunch, networking
12 – 12:10	-	Welcome
12:10 - 12:45	-	Presentation
12:45 – 1	-	Q&A
1 p.m.	-	Adjourn

https://spice.unc.edu/ncclasp/

Conflict of interest Disclosures

- The views and opinions expressed in this series are those of the speakers and do not reflect the official policy or position of any agency of the U.S. or NC government or UNC.
- Our speakers have NO financial relationships with manufacturers and/or providers of commercial services discussed in this activity.

Today's Team

- Adrian Austin, MD, MSCR - Geriatric Pulmonary and Critical Care expert, UNC School of Medicine

- Zach Willis, MD, MPH; Pediatric Antimicrobial Stewardship Director, UNC Children's

- Jim Johnson, PharmD, BCPS, AQ-ID; Pharmacist, NC CLASP

Session Objectives

1. Discuss difficulties with medication management and transitions of care (both from SNF to hospital and vice versa)
2. Discuss common medications inappropriately continued on hospital discharge
3. Discuss importance of quality communication during care transitions
4. Provide practical recommendations for addressing these issues.

Potentially Inappropriate Hospital Discharge Medications

Think 3A's

- Antipsychotics
- Antibiotics
- Antiarrhythmics

Agusti, et al. Eur Resp Journal, 2023

Antipsychotics

Frequently started in the inpatient setting for agitated delirium

21-23% of ICU patients have antipsychotics continued at time of hospital discharge

FDA **Black box warning** for use of antipsychotics in patients with dementia

Lambert, J Crit Care; 2021

Farrokh, J Pharm Pract; 2017

Antibiotics

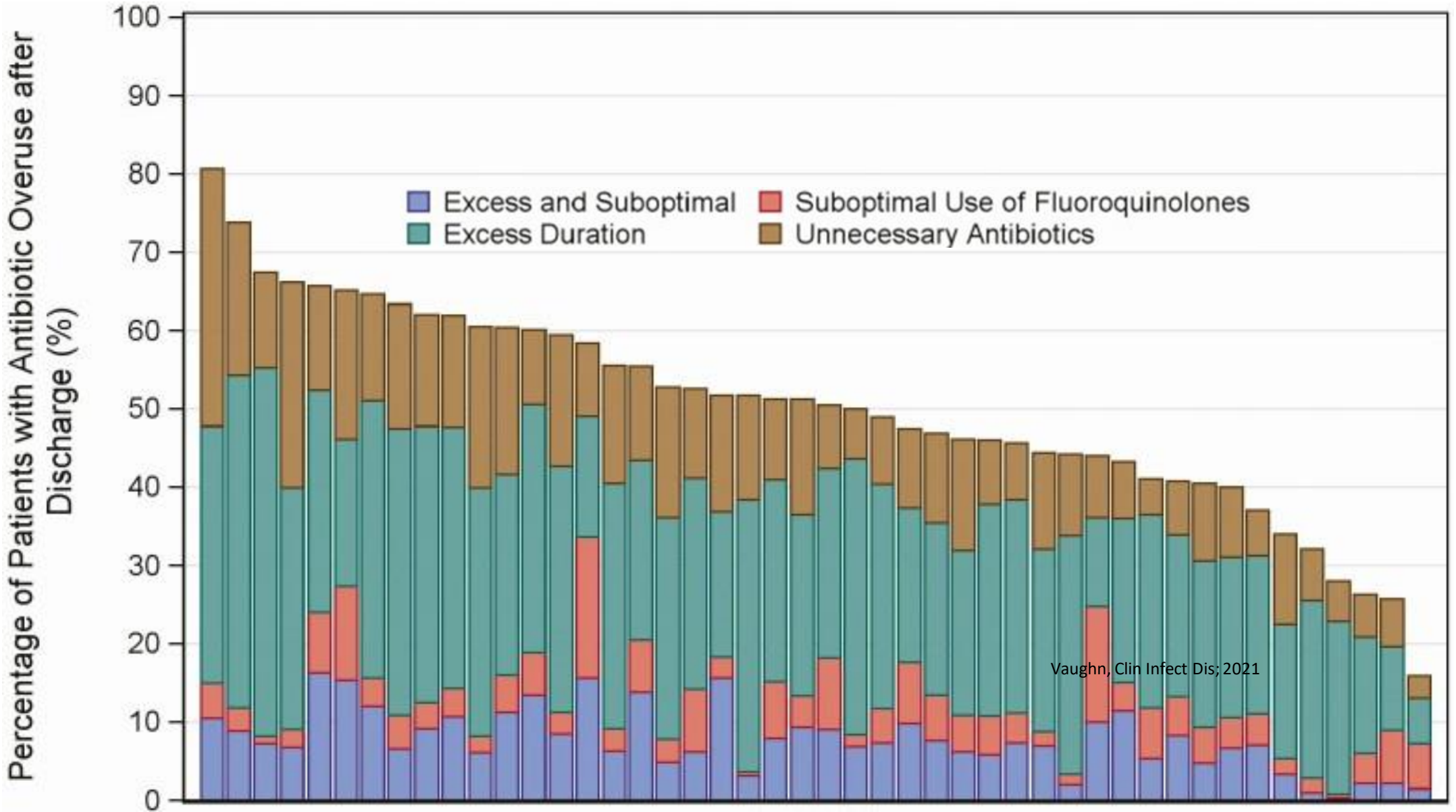
Study of 21,825 inpatients treated for infection from 2017-19

Defined as unnecessary, excess duration, or suboptimal fluoroquinolone usage.

Almost 50% of patients have antibiotic overuse after discharge

Vaughn, Clin Infect Dis; 2021

Type of Antibiotic Overuse after Discharge



Communication During Care Transitions

1. Facility→ED
2. ED→Facility
3. Hospital→ Facility

Nursing Facility to ED Transition

Case: 83yo male presents to the ED from a skilled nursing facility. He is a long-term care resident. He arrives with a demographics face-sheet but no other medical chart or information. He arrives at 1800 on a Friday evening.

On exam, he is nonverbal. He is cachectic and has a Stage III sacral decubitus ulcer. He is demonstrating signs of septic shock (hypotension, tachycardia) and treatment is initiated with fluids and IV Abx.

Nursing Facility to ED Transition
Practical Suggestions

- SNF team should clearly communicate:
  - Diagnosis
  - Duration of treatment
  - Medication list
  - Contact information for further information from facility and for patient's LAR

ED to SNF Transition

Case: 85yo female presents to the ED from a skilled nursing facility. She is a long-term care resident and has a history of moderate dementia. She was sent to the ED for increased confusion and concern for a UTI.

On exam, she is pleasant but delirious. She is complaining of burning on urination. HR is 95, T is 99.0, BP is 120/70, RR is 12. Exam is otherwise remarkable. There have been no recent medication changes. The ED draws labs, gives 1 L of IVF and starts ciprofloxacin for a presumed UTI. She is discharged back to her SNF for continued care.

Therapeutic momentum…

Most antimicrobial therapy prescribed in the ED is empiric.[1]

Antibiotic de-escalation is a new trend in emergency medicine. Emergency physicians make decisions that generate therapeutic momentum for inpatient antibiotic prescribing.

The act of simply writing in the chart,

> ***"These broad-spectrum agents should be narrowed to a single-effective agent once culture results have returned,"***

can save your patients days of unnecessary antibiotics.[2]

1. Dumkow, et al. Infect Dis Clin No Am 2023
2. Redwood, May, Pulia. 5 tips to improve AS in your ED. ACEP Now. 2020

ED to SNF transition: Practical Suggestions

- ED team should pre-define (checklist, EMR soft or hard stops, etc.):
  - Follow-up mechanism for any labs drawn and pending
  - Name of provider who will (re-) assume care of patient
  - Multifaceted systems that help ED providers optimize antimicrobial decisions set the stage for good transitions.[1]
- ED team should clearly communicate:
  - Diagnosis
  - Duration of treatment
  - Medication list and what has changed (most Discharge Summaries do this now)
  - Clinical criteria for returning to ED
  - Follow-up mechanism for questions, pending labs, etc
- SNF should:
  - Perform medication reconciliation and seek clarification as required
  - Update diagnosis, medication, allergy/intolerance list

Zalmanovich, et al.. Am J Emerg Med **2021;** 49:10–3

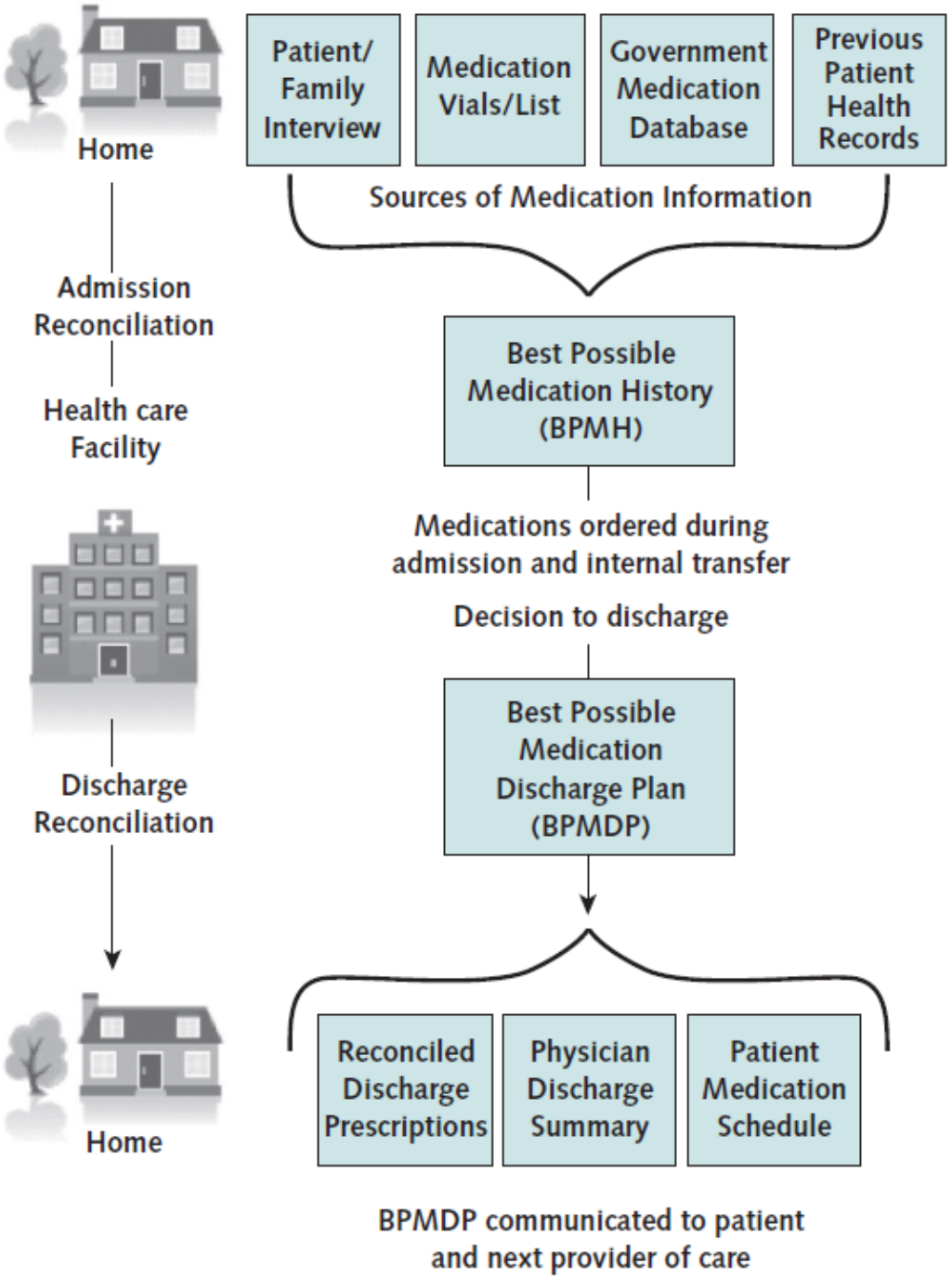
Hospital to SNF Transition

Case: An 83yo is admitted to the hospital with a hip fracture after a mechanical fall while walking her dog. She had an uncomplicated repair but developed a post-operative pneumonia on POD 2. She was started on Abx therapy and improved. She was discharged to a SNF on POD 4 for subacute rehab. Regarding the Abx, the instructions are to continue Abx for a 7-day course.

Medication Reconciliation in Transitions of Care

Perform *and* communicate a medication reconciliation.

- Compilation of a full medication history, including both prescribed and non-prescribed medications, from all available sources.
- Frequently cited as a strategy to help reduce hospital readmissions[2]
- Med Rec is often best accomplished using hospital pharmacists to coordinate med rec prior to or in the first days following discharge.



Practical Suggestions: Hospital to SNF

Ask about the 5 “D’s”

1. Diagnosis
2. Drug
3. Dose
4. Duration
5. De-escalation

Goebel, et al. Clin Microbiol Rev 2021

Practical Suggestions: Hospital to SNF

1 Diagnosis

Confirm indication for Abx.

2 Drug

Continue the current medication vs narrow if cultures are negative?

3 Dose/Route

Confirm frequency and dose

4 Duration

Is duration total time or time since discharge. ***Very important*** to clarify this to reduce unnecessary Abx duration.

5 De-escalation

Can we narrow?