



CENTER FOR
STEWARDSHIP
IN MEDICINE

September 15, 2022

IQIC 101 Open House

Agenda:

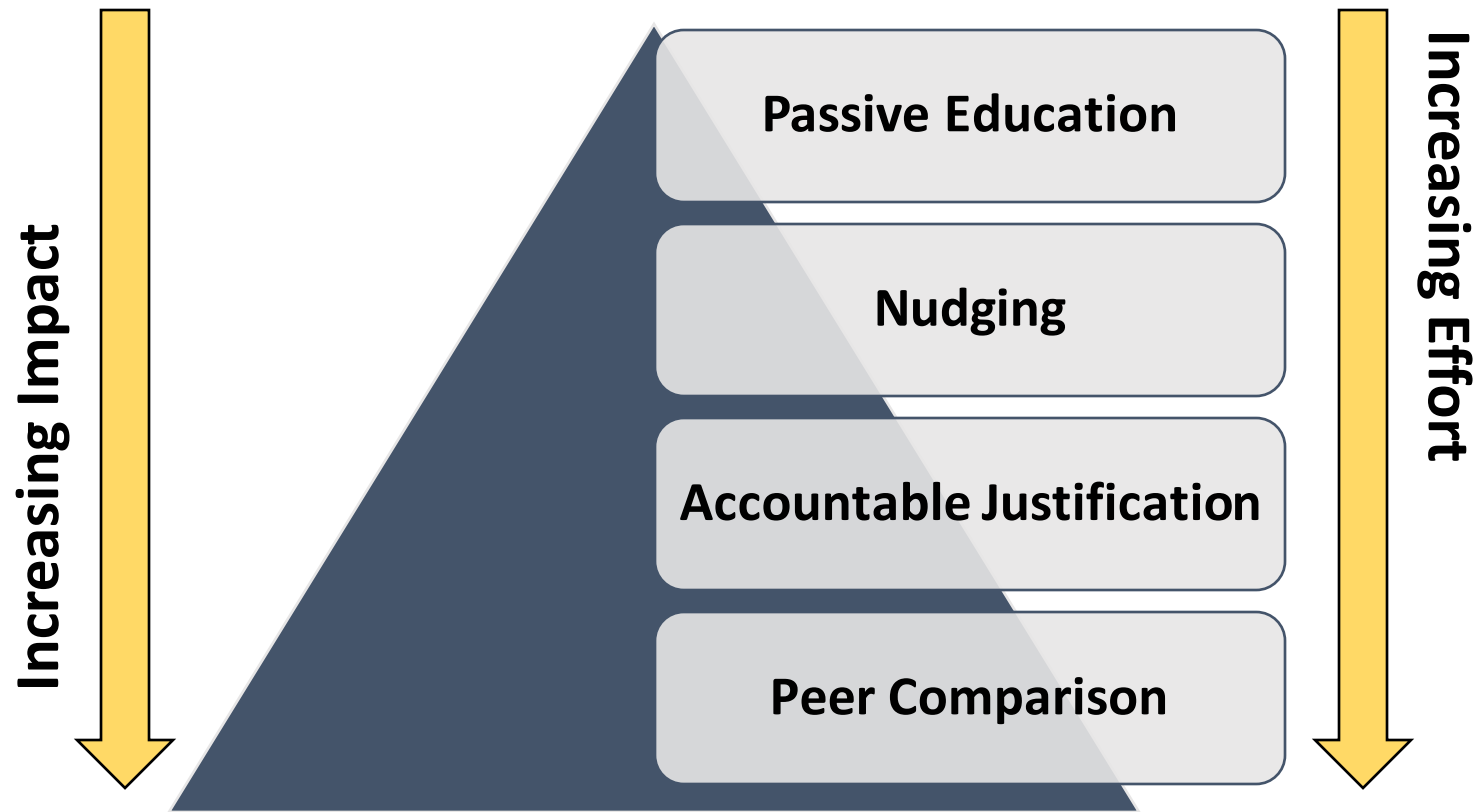
- Overview of Project and Application to Asymptomatic Bacteriuria
- Open Discussion

The Goal of this Cohort

To locally adapt antimicrobial stewardship strategies and optimize patient care



Behavioral Interventions Reduce Inappropriate Antimicrobial Prescribing

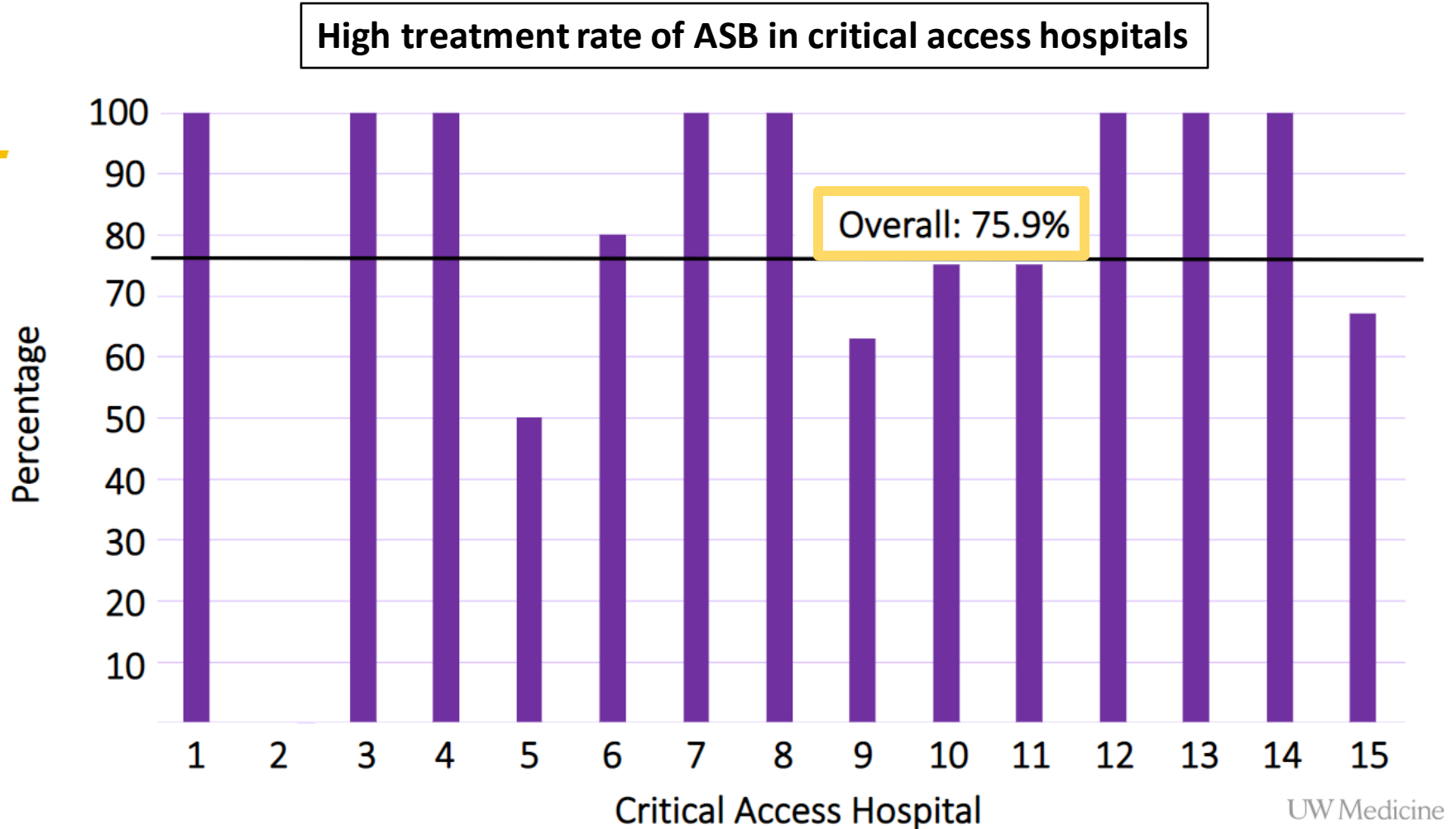


Meeker D et al. JAMA. 2016; 315(6):562-70. doi:10.1001/jama.2016.0275.

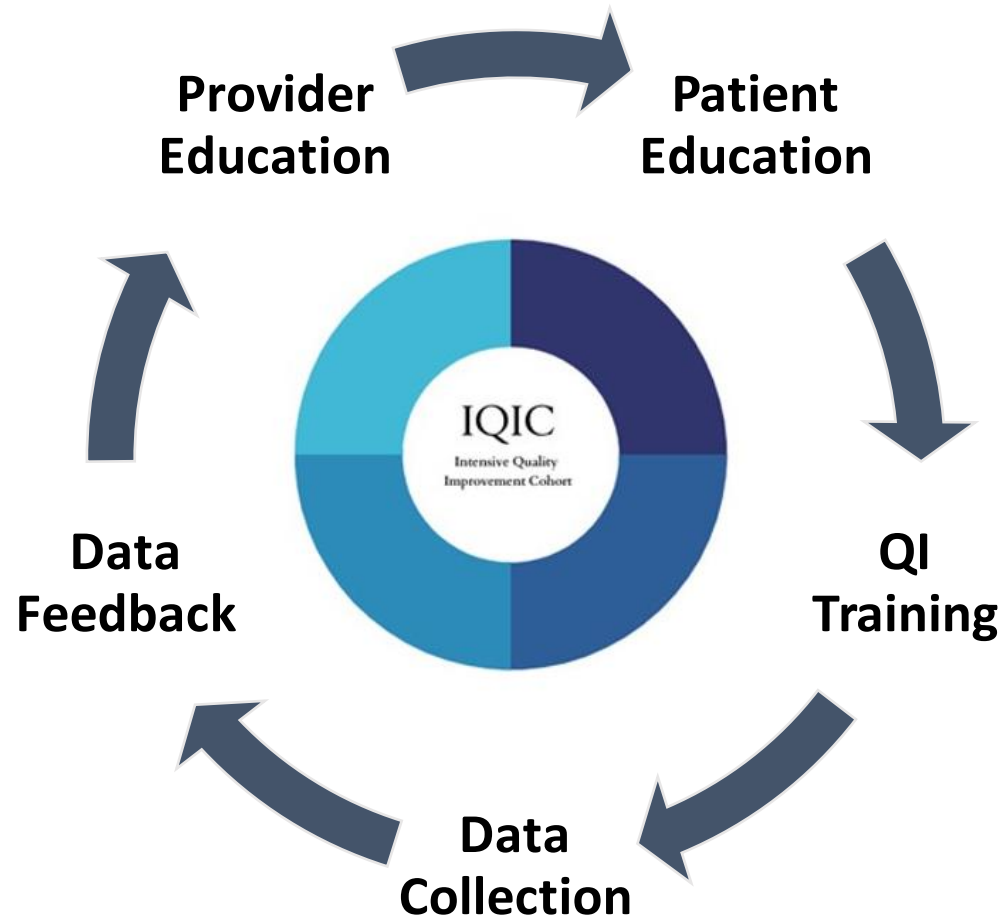
Meeker D et al. JAMA Intern Med. 2014; 174(3):425-31. doi: 10.1001/jamainternmed.2013.14191



Why asymptomatic bacteriuria?

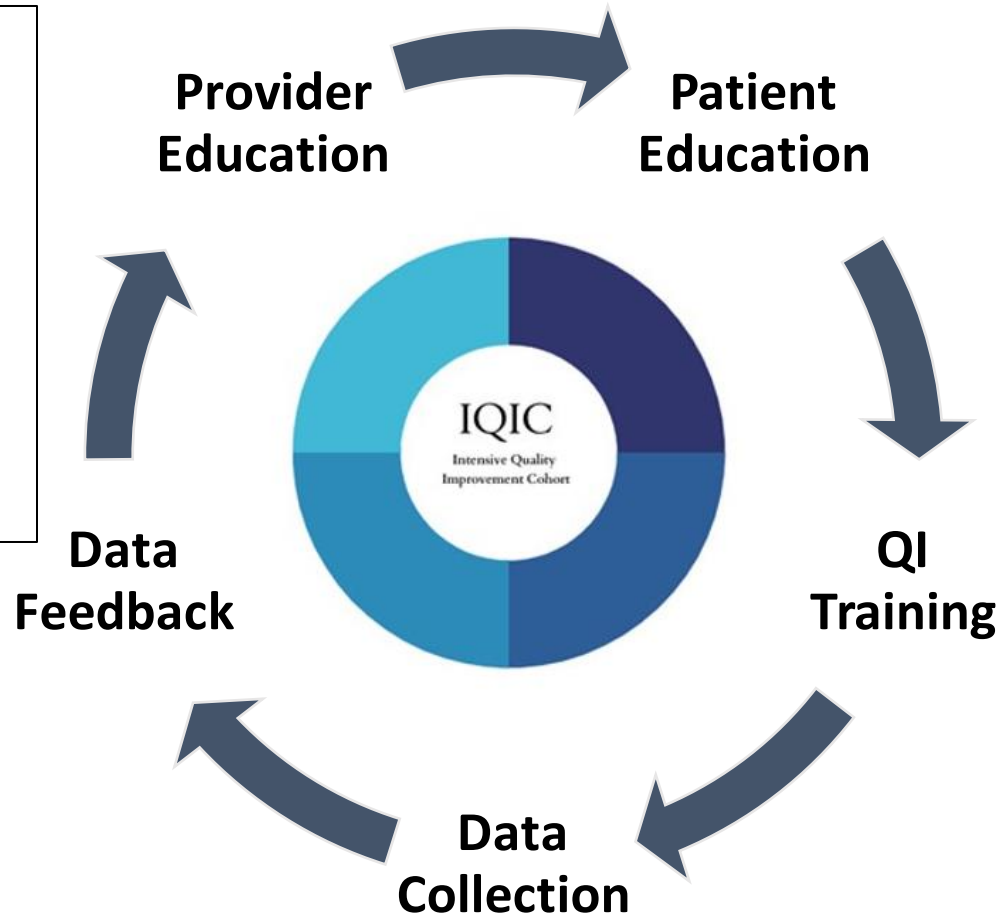


Utilizing a Multimodal Antimicrobial Stewardship Strategy



Utilizing a Multimodal Antimicrobial Stewardship Strategy

- Monthly didactics
- Distribute educational tools
 - Nursing huddles
 - Medical staff meetings
 - ED workgroup meetings
 - AMS meetings



Amazing Lineup for Monthly Didactics!

Involving both clinical and quality improvement education

Session Topic Examples

- ☐ Behavior Change and Productive Conversations
- ☐ SMART Goals
- ☐ Reflexing UAs to Urine Culture: a Pro-Con Debate
- ☐ Deeper Dive into ASB cases
- ☐ Antibiotic Harms
- ☐ Project Management Fundamentals and Tools for Success

Various Speakers:

Chloe Bryson-Cahn, MD

Alyssa Castillo, MD

Jeannie Chan, PharmD

Whitney Hartlage, PharmD

Zahra Kassamali Escobar, PharmD

John Lynch, MD

Natalia Martinez-Paz, MA, MPA

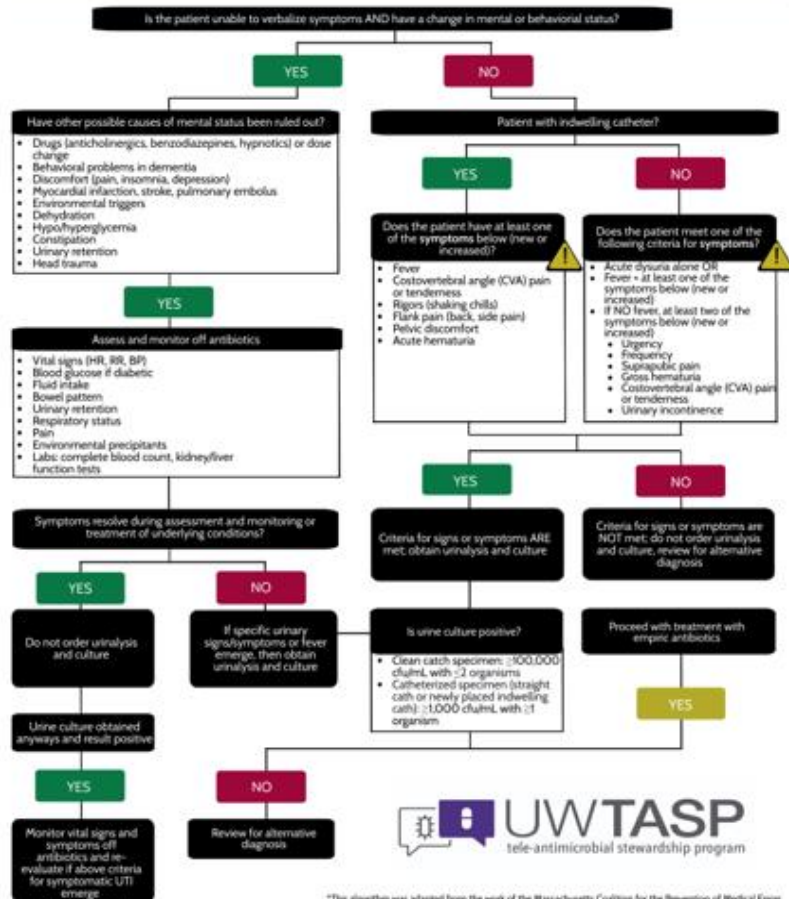
YOU ALL!



Nudging: Provider Education

Evaluation and Management of Urinary Tract Infections (UTI) Algorithm

Diagnosis of UTI requires clinical signs and symptoms of UTI and a positive culture. This algorithm is not intended for patients that meet sepsis criteria.



Treating Asymptomatic Bacteriuria

Frequently Asked Questions



How prevalent is asymptomatic bacteriuria?

- In seniors over 80 years, it can be seen in as many as 50% of long-term care patients and as many as 19% of those in the community



How should a positive urine test be approached when collected for no apparent reason?

- Treatment decisions should not be made based on test results alone
- Evaluate the patient clinically and consider a period of observation for development of specific signs or symptoms of UTI prior to the initiation of antibiotics



Should antibiotics be initiated if there is a positive urine culture and abnormal urinalysis (positive nitrates or leukocytes, increased white blood cells or pyuria)?

- Positive urine culture and abnormal urinalysis in a patient without symptoms is consistent with asymptomatic bacteriuria, which would be considered colonization and not a true infection
- Treatment with antibiotics is not indicated



Does a patient with a chronic indwelling catheter that has a positive urine culture require antibiotics?

- A chronic indwelling catheter is commonly associated with bacteriuria
- There is no need to treat unless the patient has specific symptoms of UTI



If an elderly patient presents with no specific symptoms except a change in mental status or delirium, should UTI treatment be initiated?

- UTI is much less likely without specific urinary symptoms or sepsis symptoms
- Non-specific symptoms, such as a change in mental status, delirium, fatigue, or a fall may be due to a variety of non-infectious causes, including: pain, depression, constipation, dehydration, poor sleep, or medication side effects



What should be done when a patient's family wants a urine test and antibiotic treatment in the setting of asymptomatic bacteriuria?

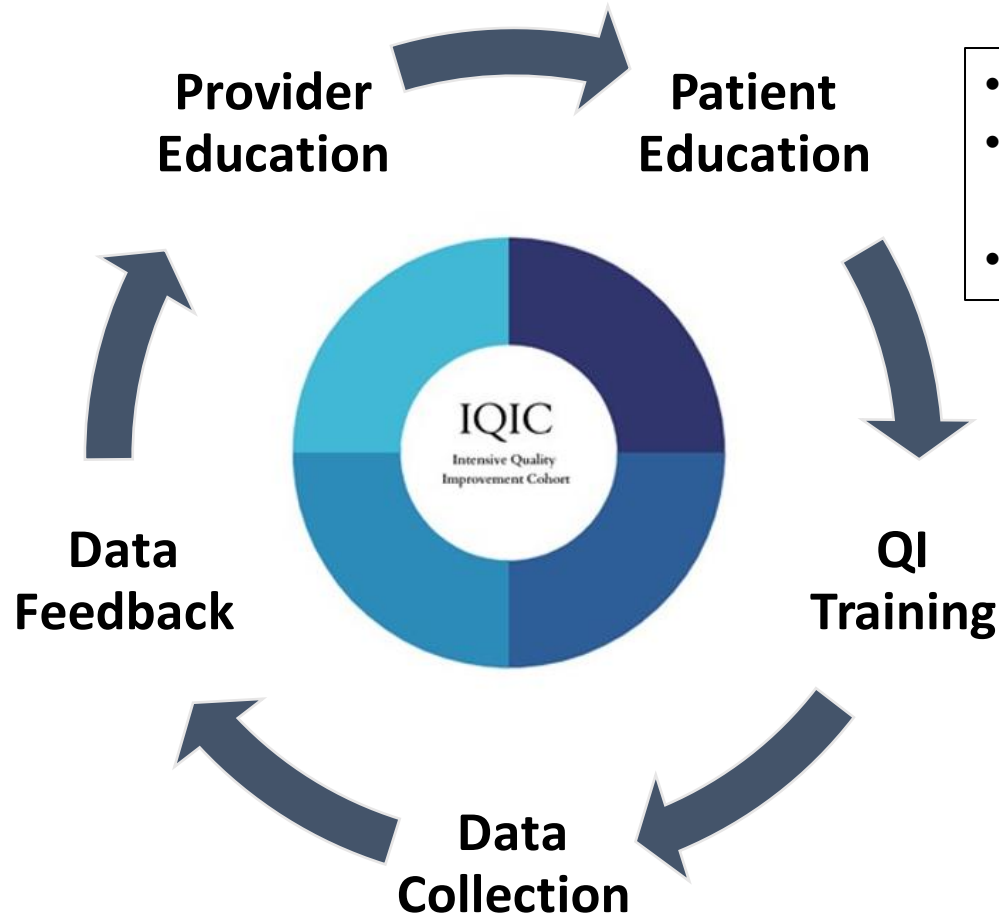
- Educate the family about the prevalence of asymptomatic bacteriuria, and tell them you do not suspect UTI on clinical grounds
- Emphasize the dangers of antibiotic overuse, such as resistance and side effects
- Antibiotics have not been shown to provide any benefit in asymptomatic bacteriuria, and thus antibiotics cause only risk with no benefit



*This handout was adapted from the work of the Massachusetts Coalition for the Prevention of Medical Errors

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Passive Education: Patient Education




Did You Know That...

Bacteria in the urine is common! As many as 15% of people aged 65-80 and 50% of people older than 80 years have bacteria in their urine, **without actually have a UTI.**








How is a urinary tract infection diagnosed?

Requires **both** findings of bacteria in a urine test **and** the presence of specific symptoms.



Having both is important, because bacteria can and do live naturally in the bladder without causing any pain or symptoms. This is commonly referred to as **asymptomatic bacteriuria**.

If you or someone you know is concerned about a UTI, see if any specific symptoms are present:

-  A burning feeling, discomfort or pain with urination
-  Pain the the lower abdomen or back
-  Increase in frequency (needing to urinate more often than usual).
-  Repeated strong urges to urinate
-  Blood in the urine


These symptoms may or may not be accompanied by fever.

What about other symptoms, such as confusion or sudden change in behavior?

UTI is less likely without the specific symptoms previously listed.

Non-specific symptoms such as confusion, a sudden change in behavior, fatigue, or a fall may be caused by other factors, including:

- Dehydration
- Depression
- Inadequate nutrition
- Medication side effects
- Poor sleep
- Constipation



bacteria *Clostridioides difficile* ("C.diff")

- Cause rashes or allergic reactions
- Harm your kidneys or other organs

2. Antibiotic Resistance

- The overuse of antibiotics has contributed to an **increase in the ability of the bacteria to resist** the effect of antibiotics
- When resistance occurs, there may be fewer good antibiotic options to **treat future infections**

Understanding the risks of using antibiotics when not needed leads to good, safe care.

What You Can Do to Help

Whenever you are prescribed antibiotics, make sure you understand why you need them.

Here are some questions for you or your loved one to ask your doctor:

- Why do I need antibiotics?
- What are common side effects?
- When should I stop the medication?
- What I do if I do not feel better in a few days?

Other Resources For You:
<https://www.cdc.gov/antibiotic-use/uti.html>

*This brochure was adapted from the work of the Massachusetts Coalition for the Prevention of Medical Errors

Worried About a Urinary Tract Infection?



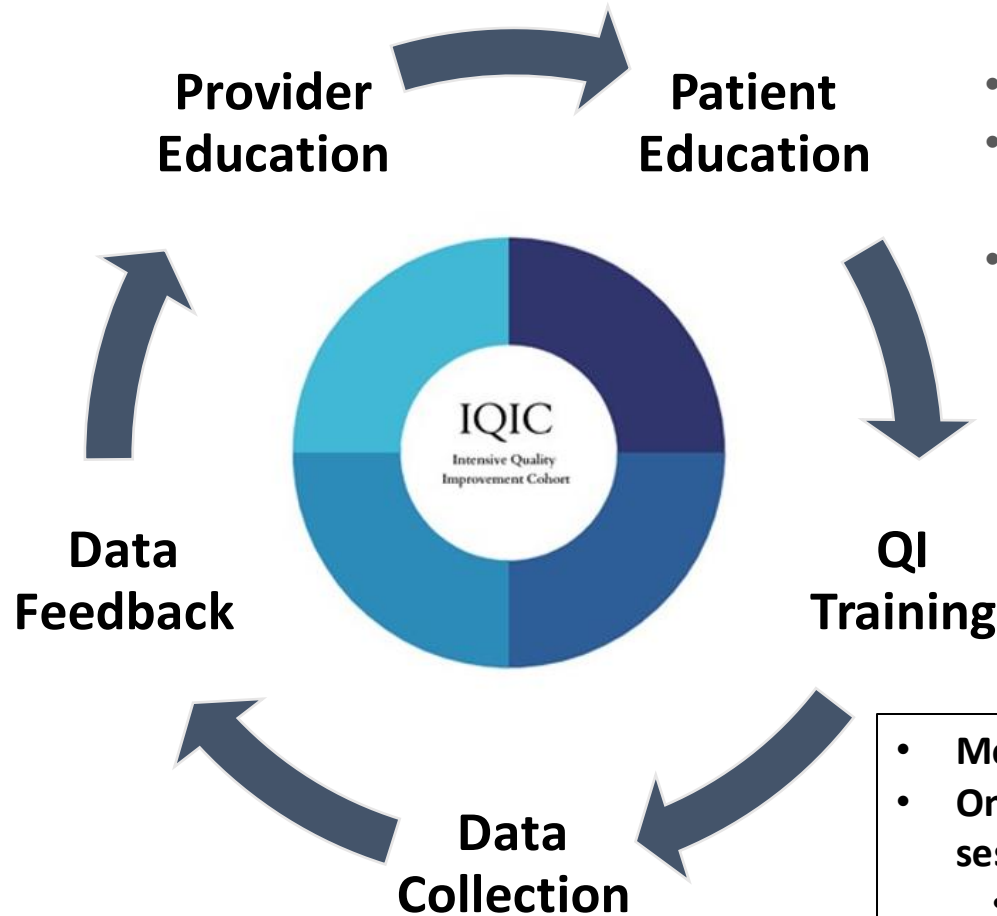
Learn about when an antibiotic is and is not needed.





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- Monthly didactics
- One-on-one coaching sessions (30 min)
 - SMART goal creation and record progress in PDSA cycle

One-on-One Meeting Topics

Hospital
demographics

Data collection
abilities

SMART goals

Tracking
progress in
PDSA cycle

Barriers

Hospital needs

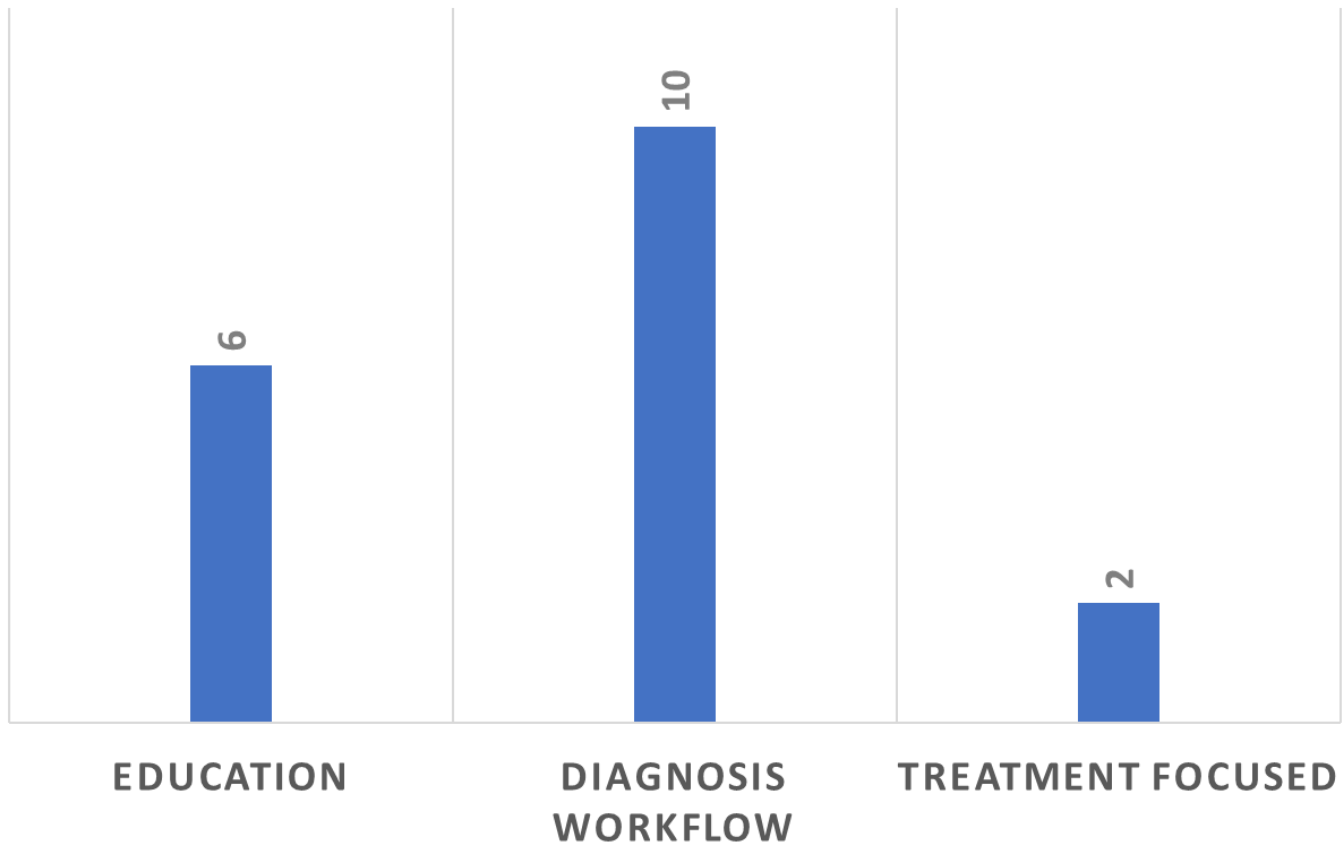
Next steps in
project

Other



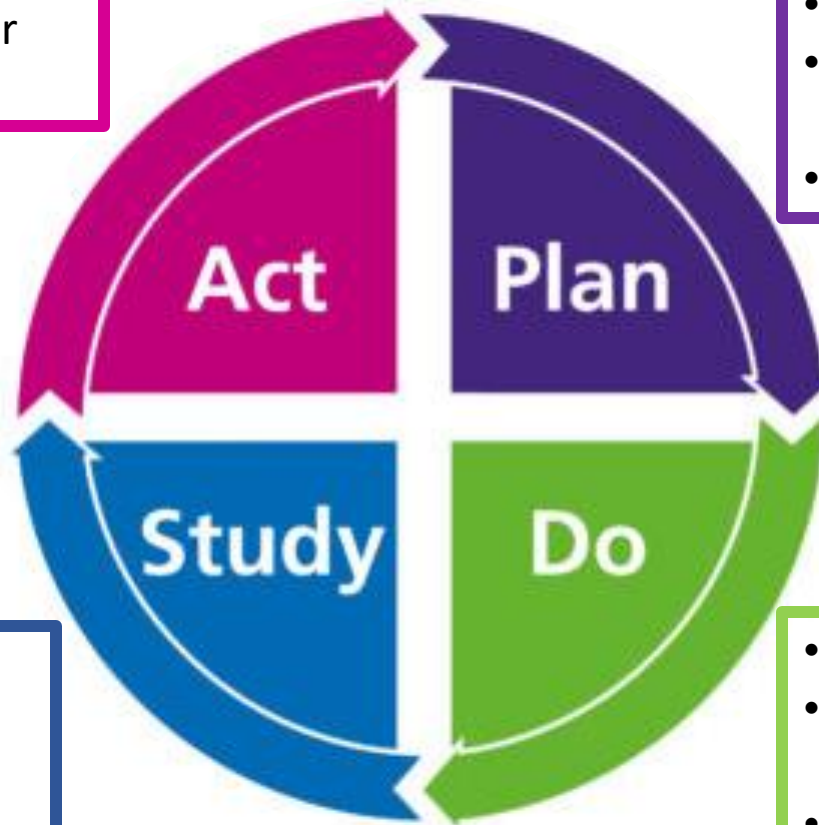
SMART Goals Vary & Are Institution Specific

SMART goal examples from 2021-2022 IQIC group



Tracking Impact on Website: PDSA

- Adopt, adapt, or abandon cycle



- Set improvement goal
- Predict what will happen
- Plan who, what, when, where, how
- Decide what data to gather

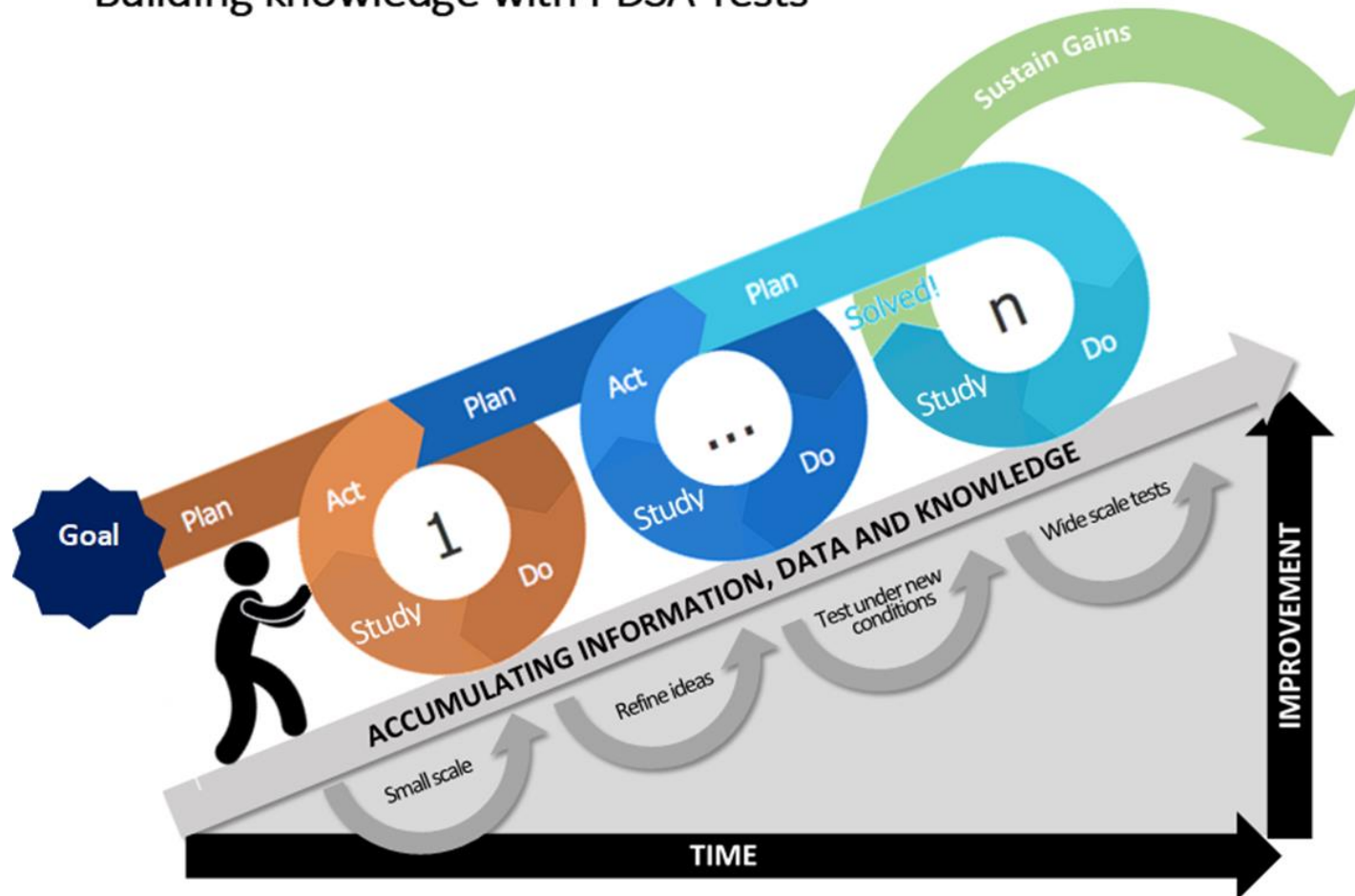
- Analyze
- Compare data vs. prediction
- Examine learning

- Carry out the plan
- Document observations & any problems encountered
- Gather data



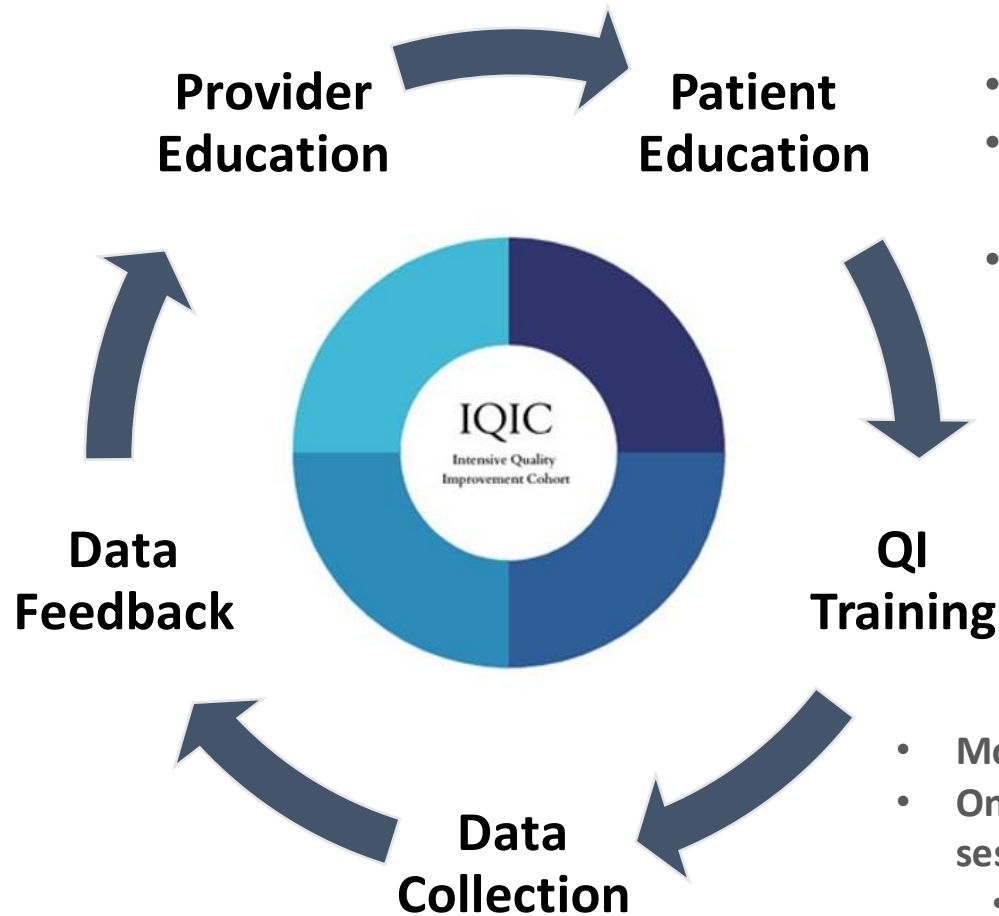
PDSAs are a Process

Building knowledge with PDSA Tests



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Urine cultures collected:

- Inpatient
- Emergency department***

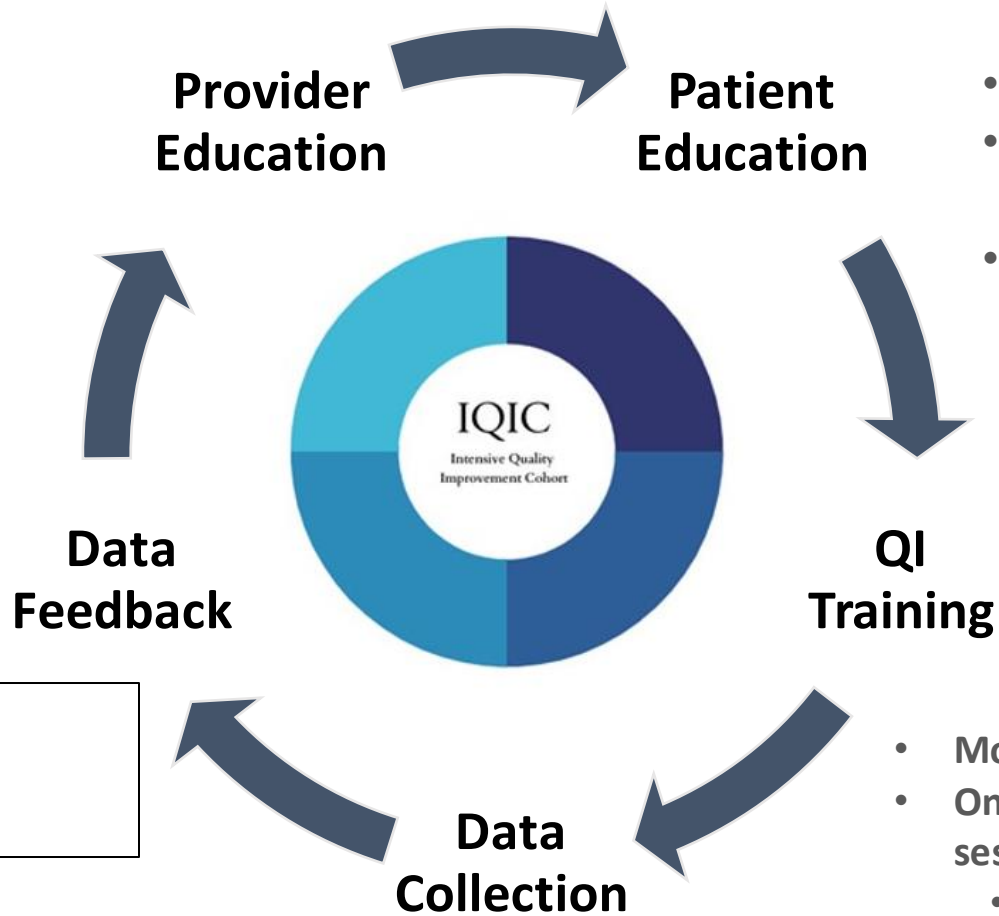
Data Collection Results Will Help Identify Opportunities for Future Stewardship Interventions

Data Phase	Case Goal	Progress Goal	Start Date	Last Submission Date
Baseline	≥15 cases	1-2 cases/week <u>or</u> 5 cases/month	10/1/2022	12/31/2022
Intervention	>25 cases	1-2 cases/week <u>or</u> 5 cases/month	1/1/2023	5/31/2023
Post-intervention	*This data phase is <u>optional</u>		10/1/2023	



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 - **AMS meetings**



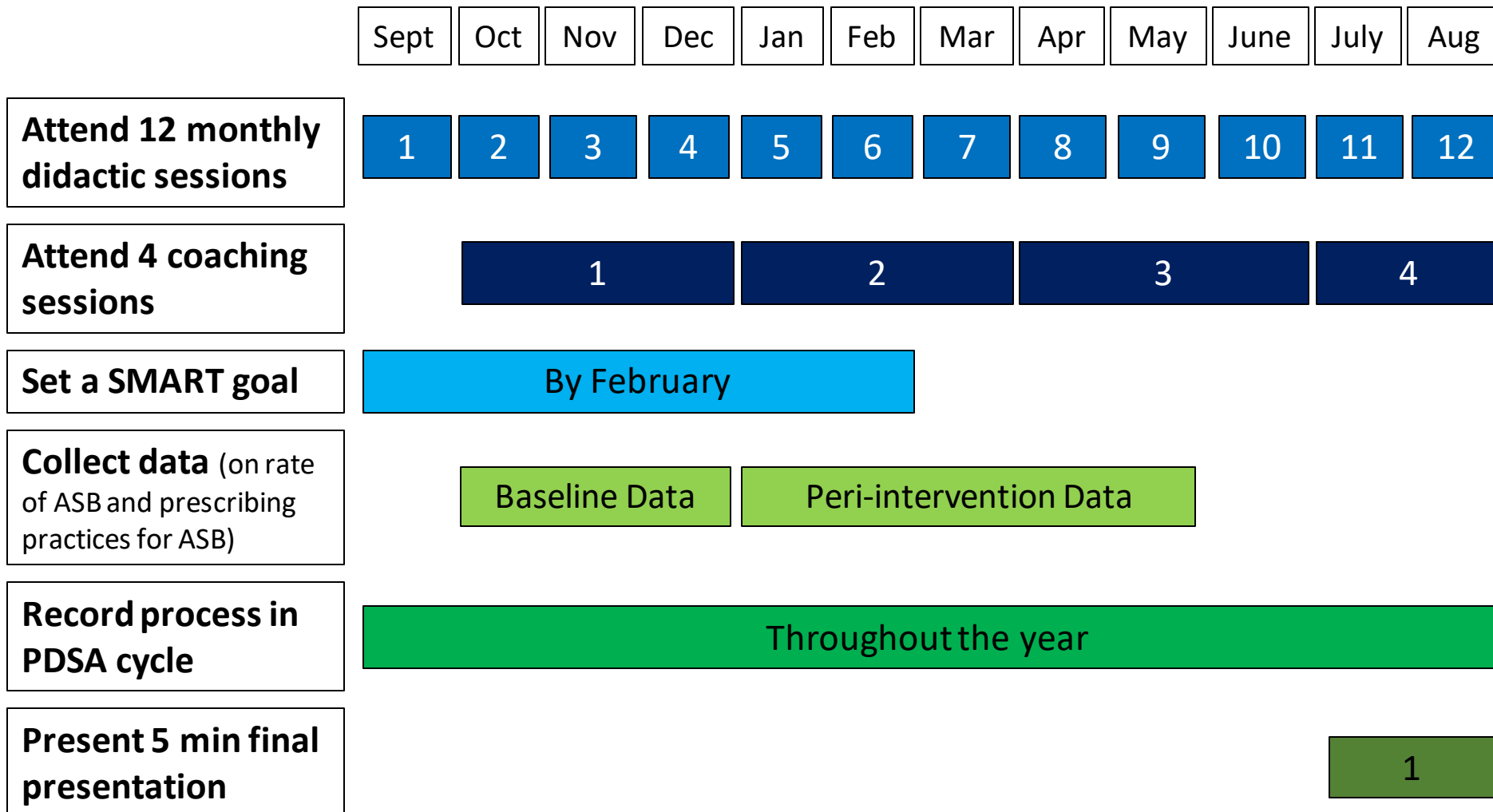
- Clinics
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- **Monthly didactics**
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Urine cultures collected:

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Summarized Expectations & Deliverables



Feasibility based on 2021-2022 cohort

**Perfect attendance at 8
monthly didactic sessions**



53% (10/19)

Attend 4 coaching sessions



58% (11/19)

Set a SMART goal



95% (18/19)

Collect data (on rate of ASB and
prescribing practices for ASB)



90% (17/19)

**Record process in PDSA
cycle**



100% (19/19)

Thank you!

First session: Thursday, September
29 at 12:00 pm PST

Questions?

whithart@uw.edu

