**Supplemental Appendix:**

**Interview Guide for Implementing diagnostic stewardship to improve diagnosis of urinary tract infections**

The purpose of this study is to improve the safety and value of Veteran care through appropriate urine culturing and by reducing unnecessary antibiotic use. We are particularly interested in understanding the urinary tract infection diagnosis pathway at your facility. This includes urine culture ordering, urine culture sample collection and processing, and urine culture reporting. We will then be asking for your feedback and input on some new strategies and tools for ordering and reporting urine cultures. There are no right or wrong answers. The information you provide will be used to further assess and refine these tools as well as mitigate barriers to use by clinicians.

Everything you say will remain confidential. Your participation is completely voluntary, and you may refrain from answering any questions or end the interview at any time.

We will be audio recording this interview/focus group to ensure that we capture everything you have to say accurately. The audio will be transcribed by the VA Central Transcription Service. Before we begin recording, do you have any questions for us?

Before we begin, do we have your permission to conduct, and audio record this interview?

< EVERYONE >

To begin, could you please tell us about:

Current position

Approximate length of time you’ve worked at facility by categories of 5 years, e.g. 1-5, 6-10, 11-15, 16-20, over 20.

Approximate length of time you’ve worked on unit here by categories of 5 years, e.g. 1-5, 6-10, 11-15, 16-20, over 20.

< For Clinicians Only >

Next, we would like to better understand current processes for urine culture ordering, urine culture sample collection and processing, and urine culture reporting

**In general, who decides if a patient needs a urine culture?**

* What criteria are used to determine if a patient needs a urine culture?
* Are any decision aids used in this process? Please describe.
* Are other colleagues consulted? If so, when/who?

**What are some of the common clinical indications for which a urine culture might be ordered?**

**Can you walk me through the process once the decision is made to obtain a urine culture?**

* What is the process for ordering the culture?
* How is the sample collected?
* Are there specific lab protocols for processing the sample?
* What information do you receive related to the culture? In what format or how is it reported?

**To the best of your knowledge does your facility have an active Antimicrobial Stewardship Program?**

< EVERYONE >

Now we are going switch gears and we would like to get your feedback and input on some strategies and tools to facilitate test ordering and provide results that help clinicians distinguish between contamination/ colonization and true infection (a process broadly known as UTI diagnostic stewardship).

We are going to share some prototype documents on the screen, starting with test ordering followed by test processing and reporting.

First, we are going to show you 3 template options related to ordering with slightly different features, which will be highlighted as we move from one option to the next.

**Would requiring documentation of symptoms to order urine cultures improve diagnosis? Why or why not?**

**Will this order template facilitate ordering of a urine culture? Why or Why not?**

**What changes are needed to make this tool work effectively in your setting?** [adaptability]

**Are there aspects of the tool that should or should not be altered?** [adaptability]

* What do you find useful or not useful?

**Would you prefer option 1, 2 or 3?** (show slide with all 3 order templates)

Next, we want to talk about urine culture processing. I am going to give you a few seconds to review the diagram. We would then like your feedback on 2 specific areas: conditional urine testing terminology; consensus guidance of > 10 WBC for threshold (no LE (leukocyte esterase), nitrate)

**From your perspective, what terminology best reflects the process depicted in the diagram? Why?**

**How similar or different is this terminology compared to what you currently use in practice? [compatibility]**

**What kinds of information and materials would be helpful to you to make this terminology part of your regular clinical practice?** [access to knowledge & information]

**Would you agree with these thresholds? Why or why not?**

**How similar or different are these thresholds compared to what you currently use in practice?** [compatibility]

**How complicated would these thresholds be for you to use?** [complexity]

**What kinds of information and materials would be helpful to you to make these thresholds part of your regular clinical practice?** [access to knowledge & information]

Finally, we are going to show you 3 template options related to urine culture reporting with slightly different features, which will be highlighted as we move from one option to the next.

**Would the reported information be adequate for normal clinical decisions? Why or why not?**

**What changes are needed to make this tool work effectively in your setting?** [adaptability]

**Are there aspects of the tool that should or should not be altered?** [adaptability]

**How similar or different is the reported information compared to what you currently use in practice?** [compatibility]

**How complicated would this information be for you to use?** [complexity]

**What kinds of information and materials would be helpful to you to make this type of reporting part of your regular clinical practice?** [access to knowledge & information]

Now that we have talked about the components and tools for UTI diagnostic stewardship we have some final questions to help us understand what would be needed to make this part of regular clinical practice at your facility.

**Can you walk us through what you would see as the process for implementing these new criteria and tools at your facility? Changes in scope of practice, formal policies, information systems or electronic records systems? Other?** [structural characteristics]

**How do you typically find out about new clinical initiatives?** [network & communications]

**How involved is leadership at your organization in promoting new clinical initiatives? And, are there certain types of leaders who you feel would be important for implementing the UTI diagnostic stewardship intervention?** [leadership engagement]

Is there anything we haven’t discussed that you think might be helpful for us to know?

Thank you for your time and insights.