HAI & ANTIMICROBIAL USE PREVALENCE SURVEY
ANTIMICROBIAL QUALITY ASSESSMENT (AQUA) FORM 1: CASE ELIGIBILITY

CDCID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____

Instructions: Refer to question 5 on the Antimicrobial Use Form (AUF); complete each section below, or check "Not applicable based on AUF" if the patient is not eligible based on question 5 of the AUF.

A. Patient age eligibility

1. Was the patient ≥1 year old on the survey date or day prior?
☐No → *NOT eligible for ANY AQUA Form. Go to HAI Form.*
☐Yes → *MAY be eligible for one or more AQUA Forms.*

B. VANCOMYCIN eligibility ☐Not applicable based on AUF

2. Patient ≥1 year old and received vancomycin IV for infection treatment on the survey date or day prior?
☐No → *NOT eligible for AQUA Vancomycin Form.*
☐Yes → *Eligible for AQUA Vancomycin Form.*

C. FLUOROQUINOLONE eligibility ☐Not applicable based on AUF

3. Patient ≥18 years old and received a fluoroquinolone for infection treatment on the survey date or day prior?
☐No → *NOT eligible for AQUA Fluoroquinolone Form.*
☐Yes→ *Eligible for AQUA Fluoroquinolone Form.*

D. COMMUNITY-ACQUIRED PNEUMONIA (CAP) eligibility ☐Not applicable based on AUF

4. In patients ≥1 year old given an antimicrobial drug(s) for site code "PNE" with onset "C" on the survey date or day prior, is there documentation in the medical record of any of the following conditions?
☐Nursing home or long term care facility or long term acute care hospital residence prior to survey hospital admission
☐Hospitalized ≥2 days in the 90 days prior to admission
☐Received IV antimicrobials in the 30 days prior to admission
☐Received cancer chemotherapy in the 30 days prior to admission
☐Received wound care in the 30 days prior to admission
☐Chronic hemodialysis
☐Home mechanical ventilation
☐AIDS
☐Solid organ, bone marrow, or stem cell transplant
☐Long-term (>30 days) high-dose corticosteroid or other immunosuppressive treatment
☐Other congenital or acquired immunodeficiency
☐Cystic fibrosis
☐**None**

5. Based on question 4, confirm patient eligibility for the AQUA CAP Form:
☐≥1 condition checked in question 4 → *NOT eligible for AQUA CAP Form.*
☐"None" checked in question 4 → *Eligible for AQUA CAP Form.*

E. URINARY TRACT INFECTION (UTI) eligibility ☐Not applicable based on AUF

6. Patient ≥1 year old and site code "UTI" with onset "C," "L" or "O" for any antimicrobial drug on the survey date or day prior?
☐No → *NOT eligible for AQUA UTI Form.*
☐Yes → *Eligible for AQUA UTI Form.*

F. AQUA eligibility summary

7. Check all AQUA Forms that need to be completed for this patient:
☐AQUA Vancomycin ☐AQUA Fluoroquinolone ☐AQUA CAP ☐AQUA UTI ☐**None**

8. Confirm next steps in data collection:
☐If "None" is checked in question 7 → *Antimicrobial use data collection is complete. Go to HAI Form.*
☐If any of the AQUA Form boxes are checked in question 7 → *Complete AQUA Form 2: General Patient Assessment, then complete the appropriate AQUA Forms 3a-3d. HAI Form also required.*

*****FORM IS COMPLETE*****

HAI & ANTIMICROBIAL USE PREVALENCE SURVEY

ANTIMICROBIAL QUALITY ASSESSMENT (AQUA) FORM 2: GENERAL PATIENT ASSESSMENT

CDC ID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____

Healthcare exposures

1. Indicate the location from which the patient was admitted to the survey hospital (check one):
☐Private residence ☐Long term care/SNF ☐LTACH ☐Another acute care hospital ☐Homeless ☐Incarcerated
☐Other _____ ☐Unknown

2. In the 30 days prior to admission to the survey hospital, did the patient receive (check all that apply):
☐IV antimicrobials ☐Cancer chemotherapy ☐Wound care ☐Chronic hemodialysis ☐Surgery
☐None ☐Unknown

3. Was the patient hospitalized in an acute care hospital for ≥2 days in the 90 days prior to this admission?
☐Yes ☐No ☐Unknown

Antimicrobial allergies

4. Is an antimicrobial drug allergy recorded in the medical record? ☐Yes ☐No ☐Unknown

4a. If yes, specify drug class or classes to which patient is allergic, and reaction(s):

Drug class	Nausea, vomiting and/or diarrhea	Hives or urticaria	Other skin rash	Wheezing, throat tightness, trouble breathing	Angio-edema or face swelling	Anaphylaxis	Not specified	Other (specify)
☐Penicillins	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Cephalosporins	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Sulfa drugs	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Macrolides	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Fluoroquinolones	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Vancomycin	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____
☐Other (specify): _____	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes	☐Yes_____

Underlying conditions

5. Check all that apply: None: ☐ Unknown: ☐

☐AIDS
☐Alcoholism in past year
☐Asplenia
☐Asthma
☐Cerebrovascular disease/stroke (except hemiplegia)
☐Chronic cognitive deficit
☐Chronic kidney disease
☐Chronic liver disease
☐Chronic obstructive pulmonary disease (COPD)/emphysema
☐Chronic lung disease (other than COPD/emphysema, asthma)
☐Chronic steroid or other immunosuppressive therapy
☐Congenital urinary tract abnormality (not VUR)
☐Congenital heart disease
☐Congestive heart failure
☐Connective tissue disease
☐Cystic fibrosis
☐Dementia
☐Diabetes mellitus with complications
☐Diabetes mellitus without complications
☐Hemiplegia
☐HIV without AIDS
☐IVDU in past year
☐Kidney stones/nephrolithiasis
☐Leukemia
☐Lymphoma or multiple myeloma
☐MRSA colonization or infection history
☐Myocardial infarction
☐Neutropenia (absolute neutrophil count <500 cells / μL)
☐Peptic ulcer disease
☐Peripheral vascular disease
☐Pregnancy
☐Recurrent cystitis or urinary tract infection
☐Sickle cell disease
☐Smoking in home or living environment (other than patient)
☐Smoking in past year (patient)
☐Solid tumor malignancy, metastatic (not urologic/renal)
☐Solid tumor malignancy, not metastatic (not urologic/renal)
☐Spinal cord injury or paraplegia or quadriplegia
☐Transplant, hematopoietic stem cell or bone marrow
☐Transplant, solid organ
☐Ureteral stent
☐Urinary tract abnormality, not otherwise specified
☐Urostomy or nephrostomy
☐Urologic or renal malignancy
☐Vesicoureteral reflux (VUR)

CDCID: ☐☐-☐☐☐☐☐

Infections present during the hospitalization

6. Complete table: No infections: ☐

No.	Infection (code)	Onset date	Signs and symptoms documented in medical record (check all that apply)			Was infection treated with antimicrobials?
1	_____ SSI? ☐Y	☐Before hospitalization ☐Hospital days 1-2 ☐On/after hosp day 3 ☐In hospital, day unk ☐Unknown	☐Cough or dyspnea ☐Diarrhea ☐Fever ☐Hypotension ☐Unknown	☐Mental status change ☐Nausea or vomiting ☐Pain at infection site ☐Positive imaging ☐None	☐Pus, drainage, abscess ☐Redness or swelling ☐Urinary frequency ☐Urinary urgency ☐Other_____	☐Yes ☐No ☐Unknown
2	_____ SSI? ☐Y	☐Before hospitalization ☐Hospital days 1-2 ☐On/after hosp day 3 ☐In hospital, day unk ☐Unknown	☐Cough or dyspnea ☐Diarrhea ☐Fever ☐Hypotension ☐Unknown	☐Mental status change ☐Nausea or vomiting ☐Pain at infection site ☐Positive imaging ☐None	☐Pus, drainage, abscess ☐Redness or swelling ☐Urinary frequency ☐Urinary urgency ☐Other_____	☐Yes ☐No ☐Unknown
3	_____ SSI? ☐Y	☐Before hospitalization ☐Hospital days 1-2 ☐On/after hosp day 3 ☐In hospital, day unk ☐Unknown	☐Cough or dyspnea ☐Diarrhea ☐Fever ☐Hypotension ☐Unknown	☐Mental status change ☐Nausea or vomiting ☐Pain at infection site ☐Positive imaging ☐None	☐Pus, drainage, abscess ☐Redness or swelling ☐Urinary frequency ☐Urinary urgency ☐Other_____	☐Yes ☐No ☐Unknown
4	_____ SSI? ☐Y	☐Before hospitalization ☐Hospital days 1-2 ☐On/after hosp day 3 ☐In hospital, day unk ☐Unknown	☐Cough or dyspnea ☐Diarrhea ☐Fever ☐Hypotension ☐Unknown	☐Mental status change ☐Nausea or vomiting ☐Pain at infection site ☐Positive imaging ☐None	☐Pus, drainage, abscess ☐Redness or swelling ☐Urinary frequency ☐Urinary urgency ☐Other_____	☐Yes ☐No ☐Unknown

More infections than fit in the table: ☐

Infection codes: BJI, BSI, CDI, CNS, CVI, DIS, ENT, GTI, HEB, IAB, LRI, PNE, REP, SST, UND, UNK, UTI

Severity of illness

7. Was the patient in an ICU at any time during the hospitalization? ☐Yes ☐No ☐Unknown

7a. If yes, enter the dates of the first ICU admission during the hospitalization:

ICU admission date: ____ / ____ /____ or ☐Unknown ICU discharge date: ____ / ____ /____ or ☐Unknown

8. Complete the table using data from the first 24-hour period of treatment during the hospitalization:

Parameter	First day, CAP treatment: ____ / ____ / ____ or ☐NA	First day, IV vancomycin: ____ / ____ / ____ or ☐NA	First day, fluoroquinolone: ____ / ____ / ____ or ☐NA	First day, UTI treatment ____ / ____ / ____ or ☐NA
Temperature:				
Highest:	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk
Lowest:	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk	____ ☐°C ☐°F or ☐Unk
Heart rate:				
Highest:	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk
Lowest:	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk
Respiratory:				
Highest resp rate:	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk	____ bpm or ☐Unk
Lowest $PaCO_2$:	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk
Mechanical vent:	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk
WBC count:				
Highest:	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk
Lowest:	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk	_____ cells/mm^3 or ☐Unk
Highest %bands:	____ % or ☐Unk	____ % or ☐Unk	____ % or ☐Unk	____ % or ☐Unk
Blood pressure:				
Lowest systolic BP:	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk
Lowest mean arterial pressure:	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk	____ mmHg or ☐Unk
On vasopressors:	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk	☐Yes ☐No ☐Unk
Lactate	_____ ☐mg/dL ☐mmol/L or Unk☐	_____ ☐mg/dL ☐mmol/L or Unk☐	_____ ☐mg/dL ☐mmol/L or Unk☐	_____ ☐mg/dL ☐mmol/L or Unk☐

*****FORM IS COMPLETE*** → *Go to AQUA Forms 3a-3d***

HAI & ANTIMICROBIAL USE PREVALENCE SURVEY: ANTIMICROBIAL QUALITY ASSESSMENT (AQUA) FORM 3a: VANCOMYCIN

CDC ID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____

Laboratory testing

1. Complete the table for POSITIVE cultures collected from the date 5 days before vancomycin IV first date (5 days before: ____/____/____) through the vancomycin IV last date (____/____/____): **No positive cultures:** ☐ **Culture data unknown:** ☐

No.	Specimen	Collect date (mm/dd/yy)	Test result final date (mm/dd/yy)	Pathogens identified (insert code)	Pathogen susceptible to oxacillin, methicillin or cefoxitin?	Pathogen susceptible to penicillin or ampicillin?	Pathogen susceptible to vancomycin?	Antimicrobial drugs given on the DAY AFTER the test result was final	Were pathogens susceptible (S) to ≥1 antimicrobial the patient was getting the DAY AFTER the test result was final?
1	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
2	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
3	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
4	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
5	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
6	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
7	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
8	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
9	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
10	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U

More positive cultures than fit in the table: ☐

CDC ID: ☐☐-☐☐☐☐☐

2. Complete the table for NEGATIVE cultures collected from 5 days before vancomycin IV first date (5 days before: ____/____/____) through the vancomycin IV last date (____/____/____):
No negative cultures: ☐ **Culture data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen
1	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
2	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
3	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
4	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
5	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

No.	Collect date (mm/dd/yy)	Specimen
6	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
7	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
8	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
9	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
10	____ / ____ / ____	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

More negative cultures than fit in the table: ☐

3. Was an MRSA surveillance culture(s) done during this admission? ☐Yes ☐No ☐Unknown
3a. If yes to question 3, were any MRSA surveillance cultures positive for MRSA during this admission?
☐Yes ☐No ☐Unknown

4. Complete the table for non-culture microbiology tests (positive and negative) collected from 5 days before vancomycin IV first date through the vancomycin IV last date:
No non-culture tests done: ☐ **Non-culture test data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen	Test	What pathogen(s) were tested for?	Result
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____

More tests than fit in the table: ☐

Post-discharge antimicrobial treatment

5. Was vancomycin IV prescribed at discharge (i.e., prescribed to be administered to the patient for additional days after hospital discharge)? ☐Yes ☐No ☐Unknown

5a. If yes to question 5, what is the total duration of the post-discharge vancomycin IV prescription?
_____ days, OR the prescription end date is ____ / ____ / _____, OR ☐Duration is unknown

*****FORM IS COMPLETE*****

HAI & ANTIMICROBIAL USE PREVALENCE SURVEY: ANTIMICROBIAL QUALITY ASSESSMENT (AQUA) FORM 3b: FLUOROQUINOLONE

CDC ID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____ **Drugs given:** ☐Ciprofloxacin ☐Levofloxacin ☐Moxifloxacin

Laboratory testing

1. Complete the table for POSITIVE cultures collected from the date 5 days before fluoroquinolone first date (5 days before: ____/____/____) through the fluoroquinolone last date (____/____/____): No positive cultures: ☐ Culture data unknown: ☐

No.	Specimen	Collect date (mm/dd/yy)	Test result final date (mm/dd/yy)	Pathogens identified (insert code)	Pathogen susceptible to ciprofloxacin?	Pathogen susceptible to levofloxacin?	Pathogen susceptible to moxifloxacin?	Antimicrobial drugs given on the DAY AFTER the test result was final	Were pathogens susceptible (S) to ≥1 antimicrobial the patient was getting the DAY AFTER the test result was final?
1	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
2	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
3	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
4	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
5	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
6	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
7	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
8	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
9	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
10	☐Blood ☐Stool ☐Urine ☐Lower resp ☐Other _____	___ / ___ / ___	___ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U

More positive cultures than fit in the table: ☐

CDCID: ☐☐-☐☐☐☐☐

2. Complete the table for NEGATIVE cultures collected from 5 days before fluoroquinolone first date (5 days before: ____/____/____) through the fluoroquinolone last date (____/____/____):
No negative cultures: ☐ **Culture data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

No.	Collect date (mm/dd/yy)	Specimen
6	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
7	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
8	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
9	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
10	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

More negative cultures than fit in the table: ☐

3. Complete the table for non-culture microbiology tests (positive and negative) collected from 5 days before fluoroquinolone first date through the fluoroquinolone last date:
No non-culture tests done: ☐ **Non-culture test data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen	Test	What pathogen(s) were tested for?	Result
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____

More tests than fit in the table: ☐

IV to PO conversion

4. Between the fluoroquinolone first date and the fluoroquinolone last date, was there a conversion from IV to PO fluoroquinolone administration? Check one:
☐Yes → Date of conversion from IV to PO administration: ____/____/____ or ☐Date unknown
☐No → For example, patient received only IV fluoroquinolones, or was switched from PO to IV fluoroquinolones, or was switched from IV to PO to IV.
☐Not applicable → Patient received only PO fluoroquinolones.
☐Unknown

CDCID: ☐☐-☐☐☐☐☐

Post-discharge antimicrobial treatment

5. Was a fluoroquinolone prescribed at discharge (i.e., prescribed to be administered to the patient for additional days after hospital discharge)?

☐Yes ☐No ☐Unknown

5a. If yes to question 5, what drug(s) were prescribed? Check all that apply:

Drug	IV route	PO route	Unknown route
☐Ciprofloxacin	☐Yes	☐Yes	☐Yes
☐Levofloxacin	☐Yes	☐Yes	☐Yes
☐Moxifloxacin	☐Yes	☐Yes	☐Yes

5b. If yes to question 5, what is the total duration of the post-discharge fluoroquinolone prescription?

_____ days, OR the prescription end date is ____ / ____ / _____, OR ☐Duration is unknown

*****FORM IS COMPLETE*****

HAI & ANTIMICROBIAL USE PREVALENCE SURVEY: ANTIMICROBIAL QUALITY ASSESSMENT (AQUA)

FORM 3c: CAP

CDC ID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____

Clinical information

1. Check any of the following ICD-9 codes that were present on admission for this patient: ☐None

☐480.0 ☐480.1 ☐480.2 ☐480.3 ☐480.8 ☐480.9 ☐481 ☐482.0 ☐482.1 ☐482.2
☐482.30 ☐482.31 ☐482.32 ☐482.39 ☐482.40 ☐482.41 ☐482.42 ☐482.49 ☐482.81 ☐482.82
☐482.83 ☐482.84 ☐482.89 ☐482.9 ☐483.0 ☐483.1 ☐483.8 ☐485 ☐486 ☐487.0
☐487.1 ☐487.8

2. CAP onset date (mm/dd/yy): ___ / ___ /___ or
☐Prior to survey hospitalization but specific date unknown ☐Unable to determine

3. CAP signs and symptoms in first 2 hospital days; check all that apply: ☐None

☐Fever	☐Increased secretions/sputum production	☐Grunting
☐Chills or rigors	☐Hemoptysis	☐Nasal flaring
☐Cough	☐Chest pain	☐Head bobbing
☐Dyspnea	☐Mental status changes or functional decline	☐Chest wall retractions
☐O_2 saturation < 90%	☐Apnea	☐Wheezing
☐Sore throat	☐Rhinorrhea	☐Muscle aches

4. Did the patient require mechanical ventilation during the hospitalization?
☐Yes
☐No
☐Unknown

4a. If yes, was the patient removed from mechanical ventilation before hospital discharge?
☐Yes, clinical status improved
☐Yes, removed from mechanical ventilation for end-of-life care (or for reasons other than improvement)
☐No
☐Unknown

5. Complete the chest imaging table, recording studies done in the first 5 hospital days (____/____/____ through ____/____/____):
No imaging studies done: ☐ **Unknown whether imaging studies were done:** ☐

	Date (mm/dd/yy)	Findings on chest imaging studies			
1	___ / ___ / ___	☐Bronchopneumonia/pneumonia ☐New or worsening infiltrates ☐Infiltrate, single lobe	☐Air space density/opacity ☐No evidence of pneumonia ☐Infiltrate, multiple lobes	☐Consolidation ☐Cavitation ☐Pleural effusion	☐Cannot rule out pneumonia ☐None of these
2	___ / ___ / ___	☐Bronchopneumonia/pneumonia ☐New or worsening infiltrates ☐Infiltrate, single lobe	☐Air space density/opacity ☐No evidence of pneumonia ☐Infiltrate, multiple lobes	☐Consolidation ☐Cavitation ☐Pleural effusion	☐Cannot rule out pneumonia ☐None of these
3	___ / ___ / ___	☐Bronchopneumonia/pneumonia ☐New or worsening infiltrates ☐Infiltrate, single lobe	☐Air space density/opacity ☐No evidence of pneumonia ☐Infiltrate, multiple lobes	☐Consolidation ☐Cavitation ☐Pleural effusion	☐Cannot rule out pneumonia ☐None of these
4	___ / ___ / ___	☐Bronchopneumonia/pneumonia ☐New or worsening infiltrates ☐Infiltrate, single lobe	☐Air space density/opacity ☐No evidence of pneumonia ☐Infiltrate, multiple lobes	☐Consolidation ☐Cavitation ☐Pleural effusion	☐Cannot rule out pneumonia ☐None of these
5	___ / ___ / ___	☐Bronchopneumonia/pneumonia ☐New or worsening infiltrates ☐Infiltrate, single lobe	☐Air space density/opacity ☐No evidence of pneumonia ☐Infiltrate, multiple lobes	☐Consolidation ☐Cavitation ☐Pleural effusion	☐Cannot rule out pneumonia ☐None of these

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CDC ID: ☐☐-☐☐☐☐☐

CAP treatment

6. Was the patient receiving antimicrobial treatment for this episode of CAP before the survey hospitalization?
☐Yes ☐No ☐Unknown

7. CAP treatment start date during the survey hospitalization (mm/dd/yy): ____ / ____ /____ or ☐Unknown

8. Complete the table for all antimicrobial drugs given to treat CAP during the survey hospitalization:

No.	Drug name	First date (mm/dd/yy)	First route	Last date (mm/dd/yy)	Last route
1		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
2		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
3		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
4		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
5		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH

More than 5 antimicrobial drugs were given to treat CAP: ☐

9. Were antimicrobial drugs prescribed at hospital discharge (i.e., prescribed to be administered to the patient for additional days after hospital discharge) to treat CAP?
☐Yes
☐No
☐Unknown

9a. If yes to question 9, what was the total duration of the post-discharge CAP treatment?
_____ days, OR the prescription end date is ____ / ____ / _____, OR ☐Duration is unknown

9b. If yes to question 9, what antimicrobial drugs were prescribed?
☐One antimicrobial drug was prescribed (enter name: _____)
☐Two or more antimicrobial drugs were prescribed
(enter up to 3 names: _____, _____, _____)
☐Unknown

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CDC ID: ☐☐-☐☐☐☐☐

Laboratory testing

10. Complete table below for POSITIVE cultures collected in the first 5 hospital days (____/____/____ through ____/____/____):
No positive cultures: ☐ **Culture data unknown:** ☐

No.	Specimen	Collect date (mm/dd/yy)	Culture result final date (mm/dd/yy)	Pathogens identified (insert codes)	Culture growth quantity* for lower respiratory cultures only	Antimicrobial drugs given on the DAY AFTER the test result was final	Were pathogens susceptible (S) to ≥1 antimicrobial the patient was getting the DAY AFTER the test result was final?
1	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
2	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
3	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
4	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
5	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
6	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
7	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
8	☐Sputum ☐Blood ☐ETA ☐Urine ☐BAL ☐Stool ☐Upper resp ☐Other _____	____ / ___ / ___	____ / ___ / ___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path2: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk Path3: ☐≥10^4 CFU/ml or similar ☐<10^4 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U

More positive cultures than fit in the table: ☐

ETA=endotracheal aspirate (or tracheal aspirate). BAL=bronchoalveolar lavage (includes bronchial lavage, mini-BAL).
*Check "≥10^4 CFU/ml or similar" if quantity of growth in the culture is reported to be as follows: moderate, many, heavy, abundant, etc. Check "<10^4 or similar" if quantity of growth in the culture is reported to be <10^4 CFU/ml or as follows: few, scarce, scant, rare, etc. Check "unknown" if no organism quantity is noted in the culture report.

CDC ID: ☐☐-☐☐☐☐☐

11. During the first 5 hospital days did the patient have a Gram stain of lower respiratory secretions (sputum, BAL, ETA, etc.)? ☐Yes ☐No ☐Unknown

11a. If yes, did the Gram stain report indicate the following:
☐Heavy, 4+, or ≥25 neutrophils (or white blood cells) per low power field [x100]
☐Rare, occasional, few, 1+ or 2+, or ≤10 squamous epithelial cells per low power field [x100]
☐Neither of the above
☐Unknown

12. Complete the table for NEGATIVE cultures collected during the first 5 hospital days (____/____/____ through ____/____/____):

No negative cultures: ☐ **Culture data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

No.	Collect date (mm/dd/yy)	Specimen
6	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
7	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
8	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
9	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
10	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

More negative cultures than fit in the table: ☐

13. Complete the table for non-culture microbiology tests (positive and negative) collected during the first 5 hospital days:

No non-culture tests done: ☐ **Non-culture test data unknown:** ☐

No.	Collect Date (mm/dd/yy)	Specimen	Test	What pathogen(s) were tested for?	Result
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____

More tests than fit in the table: ☐

14. Did the patient have any of the following blood test results during the first 2 hospital days? Check all that apply, or ☐None.

☐Arterial pH < 7.35 ☐BUN > 30 mg/dL (11 mmol/L) ☐Glucose > 250 mg/dL
☐PaO_2 < 60 mmHg ☐Sodium < 130 mmol/L ☐Hematocrit < 30%

*****FORM IS COMPLETE*****

HAI & ANTIMICROBIAL USE PREVALENCE SURVEY: ANTIMICROBIAL QUALITY ASSESSMENT (AQUA)
FORM 3d: UTI

CDC ID: ☐☐-☐☐☐☐☐ **Date:** ☐☐/☐☐/☐☐ **Data collector initials:** _____

Clinical information

1. Check any of the following ICD-9 codes that were present on admission for this patient: ☐None
☐590.10 ☐590.11 ☐590.2 ☐590.3 ☐590.80 ☐590.81
☐590.9 ☐595.0 ☐597.0 ☐597.80 ☐599.0

2. UTI onset date (mm/dd/yy): ___ / ___ /___ or
☐Prior to survey hospitalization but specific date unknown ☐Unable to determine

3. UTI signs and symptoms in first 2 hospital days; check all that apply: ☐None

☐Fever	☐Frequency	☐Costovertebral angle (CVA) pain or tenderness
☐Nausea or vomiting	☐Visible blood in urine	☐Suprapubic pain, swelling or tenderness
☐Urgency	☐Abdominal pain	☐Mental status changes or functional decline
☐Rigors	☐Urinary incontinence	☐Pain or burning with urination

4. Did the patient have an indwelling urinary catheter in place for ≥2 days on the day of UTI onset or on the day prior to UTI onset (or if onset date unknown, on the day of survey hospital admission)?
☐Yes ☐No ☐Unknown

4a. If yes, were any of the following done within 5 days after UTI onset date (or if onset date unknown, within 5 days after survey hospital admission)?
☐Catheter changed ☐Catheter removed ☐Catheter neither changed nor removed ☐Unknown

UTI treatment

5. Was the patient receiving antimicrobial treatment for this UTI before the survey hospitalization?
☐Yes ☐No ☐Unknown

6. UTI treatment start date during the survey hospitalization (mm/dd/yy): ____ / ____ /____ or ☐Unknown

7. Complete the table for all antimicrobial drugs given to treat UTI during the survey hospitalization:

No.	Drug name	First date (mm/dd/yy)	First route	Last date (mm/dd/yy)	Last route
1		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
2		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
3		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
4		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH
5		____ / ____ / ____	☐IV ☐IM ☐PO ☐INH	____ / ____ / ____	☐IV ☐IM ☐PO ☐INH

More than 5 antimicrobial drugs were given to treat UTI: ☐

8. Were antimicrobial drugs prescribed at hospital discharge to treat this UTI (i.e., prescribed to be administered to the patient for additional days after hospital discharge)?
☐Yes ☐No ☐Unknown

8a. If yes to question 8, what is the total duration of the post-discharge UTI treatment?
_____ days, OR the prescription end date is ____ / ____ / _____, OR ☐Duration is unknown

8b. If yes to question 8, what antimicrobial drugs were prescribed?
☐One antimicrobial drug was prescribed (enter name: _____)
☐Two or more antimicrobial drugs were prescribed
(enter up to 3 names: _____, _____, _____)
☐Unknown

CDC ID: ☐☐-☐☐☐☐☐

Laboratory testing

9. Complete table below for POSITIVE cultures collected in the first 5 hospital days (____/____/____ through ____/____/____):

No positive cultures: ☐ **Culture data unknown:** ☐

No.	Specimen	Collect date (mm/dd/yy)	Culture result final date (mm/dd/yy)	Pathogens identified (insert codes)	Culture growth quantity* for urine cultures only	Antimicrobial drugs given on the DAY AFTER the test result was final	Were pathogens susceptible (S) to ≥1 antimicrobial the patient was getting the DAY AFTER the test result was final?
1	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
2	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
3	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
4	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
5	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
6	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
7	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U
8	☐Urine CC ☐Lower resp ☐Urine cath ☐Stool ☐Urine other ☐Blood ☐Other _____	___/___/___	___/___/___	Path1 _____ Path2 _____ Path3 _____	Path1: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path2: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk Path3: ☐≥10^5 CFU/ml or similar ☐<10^5 or similar ☐Unk	Drug1 _____ Drug2 _____ Drug3 _____ Drug4_____	Path1: ☐Y ☐N ☐U Path2: ☐Y ☐N ☐U Path3: ☐Y ☐N ☐U

More positive cultures than fit in the table: ☐

Urine CC=urine clean catch. Urine cath=urine collected from an indwelling urinary catheter. Urine other=urine collected via other or unspecified means.

*Check "≥10^5 CFU/ml or similar" if quantity of growth in the culture is reported to be as follows: moderate, many, heavy, abundant, etc;. Check "<10^5 or similar" if quantity of growth in the culture is reported to be <10^5 CFU/ml or as follows: few, scarce, scant, rare, etc.Check "unknown" if no organism quantity is noted in the culture report.

CDCID: ☐☐-☐☐☐☐☐

10. Complete the table for NEGATIVE cultures collected in the first 5 hospital days (____/____/____ through ____/____/____):

No negative cultures: ☐ **Culture data unknown:** ☐

No.	Collect date (mm/dd/yy)	Specimen
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

No.	Collect date (mm/dd/yy)	Specimen
6	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
7	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
8	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
9	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____
10	____ / ___ / ___	☐Blood ☐Lower resp ☐Urine ☐Stool ☐Other _____

More negative cultures than fit in the table: ☐

11. Complete the table for urinalyses collected in the first 5 hospital days:

No urinalyses done: ☐ **Unknown whether urinalyses were done:** ☐

No.	Urinalysis date (mm/dd/yy)	Pyuria (>5 WBCs / hpf)	Nitrites	Leukocyte esterase	Bacteria	Yeast
1	___ / ___ / ___	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk
2	___ / ___ / ___	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk
3	___ / ___ / ___	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk
4	___ / ___ / ___	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk
5	___ / ___ / ___	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk	☐Y ☐N ☐Unk

12. Complete the table for non-culture tests (positive and negative) collected in the first 5 hospital days:

No non-culture tests done: ☐ **Non-culture test data unknown:** ☐

No.	Collect Date (mm/dd/yy)	Specimen	Test	What pathogen(s) were tested for?	Result
1	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
2	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
3	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
4	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____
5	____ / ___ / ___	☐Blood ☐Lower resp ☐Upper resp ☐Urine ☐Stool ☐Other _____	☐PCR ☐DFA ☐Antigen test ☐Other_____	☐Legionella ☐Cdiff ☐RSV ☐Pneumococcus ☐Adeno ☐Influenza ☐hMPV ☐Paraflu ☐Other _____	☐Negative ☐Unknown ☐Positive (insert code): Path1_____Path2_____ Path3_____

More tests than fit in the table: ☐

*****FORM IS COMPLETE*****