Antimicrobial Management Program
Gap Analysis Checklist

HQI HEALTH QUALITY INNOVATORS | HQIN Health Quality Innovation Network

Facility Name:	Date:
Completed By:	

Executive Ownership	Y	N	Comments
Senior leadership is supportive of program and necessary requirements to meet resource needs	☐	☐	
Process exists to review medical staff participation in hospital quality initiatives	☐	☐	
Medical staff process exists to monitor compliance to quality programs • Process exists to evaluate outliers	☐	☐	
Process exists to evaluate critical staffing needs for quality programs: • Central Order Entry (Supply Chain sponsored program) has been retained as a method for pharmacist redeployment, for clinical programs as opposed to staff reduction • Microbiology services are readily available • Infection Prevention staff are readily available • Education time and resources are protected and provided to support programs- i.e. AMP development	☐	☐	

Information Technology	Y	N	Comments
IT resources are dedicated to the implementation of Electronic Health Record (EHR) support for clinical use in all departments	☐	☐	
Pharmacy has an available staff member trained and dedicated to electronic formulary maintenance and decision support: • Comments • Rule development (Automatic Stop Orders) • Clinical reminders • Order set development • Triggers (Clinical Reminders) • Lab view groups	☐	☐	

Staff Development	Y	N	Comments
Programs exist to train current staff on antimicrobial stewardship: • IV to PO conversion • Renal dose adjustment • Streamlining principles	☐	☐	
Training hours are allocated to support staff development	☐	☐	
AMP Competencies incorporated into initial 3 months and annual pharmacist evaluations	☐	☐	

IV to PO Conversion Program	Y	N	Comments
Medical staff approved policy and procedure in place for pharmacist authorized automatic conversion of IV medications to bioequivalent PO given appropriate indications	☐	☐	
IV to PO policy include the following agents: • Azithromycin • Doxycycline • Quinolones • Fluconazole • Linezolid • Metronidazole • Voriconizole • TMP/SMX	☐	☐	
Pharmacists have completed competency assessment and training prior to participation and whenever policy or procedure changes made and at least annually	☐	☐	
A method exists to identify eligible patients Examples: • Case management report • Drug tracer report • Patient profile reviews	☐	☐	
IV to PO is an accepted and supported program by key stakeholders such as: • Pharmacists • Physicians • Nurses • Practitioners	☐	☐	
Cost savings are assigned to IV to PO interventions and incorporated as part of AMP metrics	☐	☐	

IV to PO Conversion Program (continued)	Y	N	Comments
IV to PO interventions are documented in EHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committee • Pharmacy PI	☐	☐	
Approved medications are reviewed at least annually by medical staff	☐	☐	
IV to PO program is incorporated into Care Coordination Initiative	☐	☐	

Renal Dosing (RD) Adjustment Program	Y	N	Comments
Medical staff approved policy and procedure in place for pharmacist authorized dosing adjustment for selected antimicrobials	☐	☐	
Renal dosing adjustment policy include the following agents based on formulary (partial list): Quinolones Fluconazole Acyclovir Ampicillin Aztreonam Cefazolin Cefuroxime Ceftazidime Cefepime Meropenem Primaxin Ertapenem TMP/SMX Unasyn Zosyn	☐	☐	
Pharmacists have completed competency assessment and training prior to participation and whenever policy or procedure changes made	☐	☐	
Pharmacists have completed competency assessment prior to participation and whenever policy or procedure changes made and at least annually	☐	☐	

Renal Dosing (RD) Adjustment Program (continued)	Y	N	Comments
A method exists to identify eligible patients Examples: • Serum Creatinine (SCr) report • Drug tracer report • Patient profile reviews	☐	☐	
RD is an accepted and supported program by key stakeholders.	☐	☐	
Cost savings are assigned to RD interventions and incorporated as part of AMP metrics	☐	☐	
RD interventions are documented in EHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committee • Pharmacy PI	☐	☐	
Approved medications are reviewed at least annually by medical staff	☐	☐	
Renal program is incorporated into Care Coordination Initiative	☐	☐	

Criteria for Use Antimicrobials	Y	N	Comments
Medical staff approved policy and procedure that identifies criteria-based antimicrobials and defines criteria for use	☐	☐	
A method exists to identify eligible orders Examples: • Required order sheet • Mandatory pharmacist review • Criteria check sheet • Patient profile reviews • EHR solutions (i.e Dictionary/ Formulary comments)	☐	☐	
An annual review is required for all criteria for use medications	☐	☐	
Criteria for Use policy is accepted and supported by key stakeholders.	☐	☐	
Criteria for use interventions are documented in EHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committees (i.e. Infection Prevention, Pharmacy & Therapeutics, Quality) • Pharmacy PI	☐	☐	
Criteria are reviewed at least annually and approved by medical staff	☐	☐	

Formulary Review	Y	N	Comments
Annual review of formulary antimicrobials performed with considerations including clinical and financial metrics	☐	☐	
Formulary inclusion based on microbiology/sensitivity data, medication clinical profile, financial and safety data	☐	☐	
Medical staff approved policy and procedure in place for pharmacist authorized automatic therapeutic interchanges for the following agents.Example Recommendations: • Quinolones • Carbapenems • Ceftazidime/Cefepime • Ceftriaxone/Cefotaxime • Cefoxitin/Cefotetan • Timentin/Zosyn • Cefazolin q 6 hr to Cefazolin q 8 hr • Macrolides	☐	☐	
Pharmacodynamic dosing of select drugs has been implemented (i.e. piperacillin/tazobactam (Zosyn) 3.375 gm q8 hr over 4 hours vs. 4.5 gm IV q 6 hr)	☐	☐	

Antibiogram and Culture & Sensitivity Reporting	Y	N	Comments
Antibiogram is developed in accordance with Clinical and Laboratory Standards Institute (CLSI) standards and updated at least annually	☐	☐	
A method for distribution of antibiogram to medical staff is in place and readily available at point of prescribing	☐	☐	
Sensitivity reporting is based on current CLSI recommendations	☐	☐	

Antibiogram and Culture & Sensitivity Reporting (continued)	Y	N	Comments
Culture and Sensitivity report lists antibiotics in order of increasing spectrum of activity and not alphabetical (i.e. 1st generation is reported before 3rd generation cephalosporin)	☐	☐	
Antibiotic sensitivity is suppressed according to CLSI cascading recommendations	☐	☐	
Culture and sensitivity reporting recommendations are approved by appropriate medical staff	☐	☐	
Activity trending data is reported and shared beyond facility (to Health Department, HQIC, Regional Long Term Care facilities)	☐	☐	

Empiric Antimicrobial Treatment Guidelines	Y	N	Comments
Medical staff approved Empiric Antimicrobial Treatment Guidelines in place for most common infections. For example: Upper and Lower respiratory, Gastrointestinal, Genitourinary, Skin/Soft Tissue, Bone and Joint, CNS infections	☐	☐	
Empiric antimicrobial guidelines are tailor to facility specific antibiogram	☐	☐	
A method is in place to have guidelines readily available to medical staff at point of prescribing Examples: • Required order sheet • Criteria check sheet	☐	☐	
Empiric guidelines are incorporated into ePOM (CPOE) (i.e. physician favorites to treat specific infections)	☐	☐	
An annual review is required to assess adherence to empiric guidelines and reflect treatment outcome	☐	☐	

Empiric Antimicrobial Treatment Guidelines (continued)	Y	N	Comments
Empiric Antimicrobial Treatment Guidelines are accepted and supported by key stakeholders.	☐	☐	
Empiric antimicrobial treatment interventions are documented in EHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committees (i.e. Infection Prevention, Pharmacy & Therapeutics, Quality) • Pharmacy PI	☐	☐	
Guidelines are reviewed at least annually and approved by medical staff	☐	☐	

Antimicrobial Streamlining	Y	N	Comments
Appropriate staff identified to perform daily function	☐	☐	
A method is in place to identify patients: • Antimicrobial agents for a period longer than (suggest 48 or 72 hours) with negative culture • Patients with positive culture regardless of presence of antimicrobial order	☐	☐	
Medical staff approved procedure identifying preferred method of pharmacist intervention • Discussion with prescriber • Note in chart • Referral to AMP team • Electronic reminder (i.e. duration of therapy guidance)	☐	☐	

Antimicrobial Streamlining (Continued)	Y	N	Comments
Streamlining is an accepted and supported program by key stakeholders.	☐	☐	
Cost savings are assigned to Streamlining interventions and incorporated as part of AMP metrics	☐	☐	
Pharmacists have completed competency assessment and training prior to participation and at least annually	☐	☐	
Staffing schedule allows time for pharmacist to evaluate and make streamlining recommendation	☐	☐	
Streamlining interventions are documentedEHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committee • Infection Prevention Committee • Pharmacy PI	☐	☐	

Antimicrobial Streamlining- Targeted Drug Review	Y	N	Comments
Appropriate staff are identified to perform daily function	☐	☐	
There is a method in place to identify target antimicrobials based on purchases, sensitivity trending, broad-spectrum activity or limited indications	☐	☐	
There is a method in place to identify patients receiving targeted antimicrobial agents	☐	☐	
Medical staff approved procedure in place identifying preferred method of pharmacist intervention • Consider order set or criteria for use	☐	☐	
Streamlining is an accepted and supported program by key stakeholders.	☐	☐	
Cost savings are assigned to Streamlining interventions and incorporated as part of AMP metrics	☐	☐	
Pharmacists have completed competency assessment and training prior to participation and at least annually.	☐	☐	
Staffing schedule allows time for pharmacist to evaluate and make streamlining recommendation	☐	☐	
Streamlining interventions are documented in EHR and reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committee • Infection Prevention Committee • Pharmacy PI	☐	☐	

Duration of Antimicrobial Therapy Monitoring	Y	N	Comments
Medical staff approved Duration of Antimicrobial Treatment Guidelines in place for most common infections. For example: Upper and Lower respiratory, Gastrointestinal, Genitourinary, Skin/Soft Tissue, Bone and Joint, CNS infections	☐	☐	
Appropriate staff are identified to perform daily function	☐	☐	
A method is in place to identify patients • Antimicrobial agents for a period longer than _____ (suggest 7-10 days)	☐	☐	
Medical staff approved procedure in place identifying preferred method of pharmacist intervention: • Discussion with prescriber • Note in chart • Referral to AMP team • Electronic reminder (i.e. duration of therapy guidance) • Preprinted order forms	☐	☐	
Duration of Antimicrobial Therapy monitoring is an accepted and supported program by key stakeholders.	☐	☐	
An annual review is required to assess adherence to empiric guidelines and show treatment outcome	☐	☐	
Cost savings are assigned to duration of therapy interventions and incorporated as part of AMP metrics	☐	☐	
Pharmacists have completed competency assessment and training prior to participation and at least annually	☐	☐	
Staffing schedule allows time for pharmacist to evaluate and make recommendation	☐	☐	

Duration of Antimicrobial Therapy Monitoring (Continued)	Y	N	Comments
Duration of therapy interventions are documented EHRand reported through appropriate group(s): • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committee • Infection Prevention Committee • Pharmacy PI	☐	☐	
Guidelines are reviewed at least annually and approved by medical staff	☐	☐	
Duration of Antimicrobial Therapy monitoring is incorporated into Care Coordination Initiative	☐	☐	

Utilization Reviews	Y	N	Comments
Appropriate antibiotics chosen to review in accordance with Criteria for Use and Targeted Medication policies	☐	☐	
Target infections chosen to review adherence to empiric antimicrobial guidelines and reflect treatment outcome	☐	☐	
Target infections chosen to review adherence to duration of antimicrobial therapy guidelines and show treatment outcome	☐	☐	
Recommendations from review are presented to and approved by medical staff	☐	☐	

Utilization Reviews (continued)	Y	N	Comments
Results and recommendations reported to appropriate groups: • Medical Executive Committee to monitor compliance • Hospital Performance Improvement (PI)/ Continuous Quality Improvement (CQI) committees (i.e. Infection Prevention, Pharmacy & Therapeutics, Quality) • Pharmacy PI	☐	☐	
A method exists to monitor adherence to utilization review recommendations within 12 months of initial review	☐	☐	

Metrics	Y	N	Comments
A method exists to capture the following metrics: • Days of Therapy (DOT) per 1,000 patient days • Antimicrobial expenditures • Antimicrobial susceptibilities • AMP intervention acceptance rates • DRG based length of stay • Other related metrics as defined by facility or division	☐	☐	

This material was prepared by Health Quality Innovators, a Hospital Quality Improvement Contractor (HQIC) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 12SOW/HQI/HQIC-0150-01/24/22