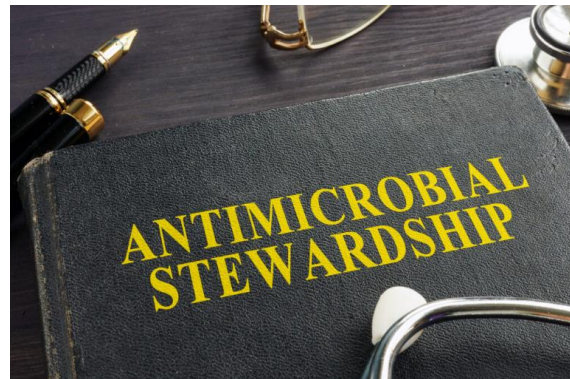


# Principles of Antimicrobial Stewardship (AS) and the New Jersey Department of Health's Antimicrobial Stewardship Recognition Program (ASRP) -Post-Acute Care Settings: Bronze, Silver, and Gold Levels-

New Jersey Department of Health – Communicable Disease Service

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# Background

- Antimicrobial Stewardship (AS)
  - A rationale, systematic commitment to the appropriate and safe use of antimicrobials
- Antimicrobial Resistance (AR) is a global threat
- There were 1.27 million people killed worldwide and 5 million associated deaths in 2019
- U.S. - 2.8 million antimicrobial-resistant infections and more than 35,000 deaths annually
- *Clostridioides difficile* is a complicating factor...
  - Associated with antimicrobial use
  - Adds to US toll and burden
  - Excess of 3 million cases and 48,000 deaths



<https://www.cdc.gov/drugresistance/about.html>

# Centers for Disease Control and Prevention (CDC) Antimicrobial Stewardship Core Elements (CE)

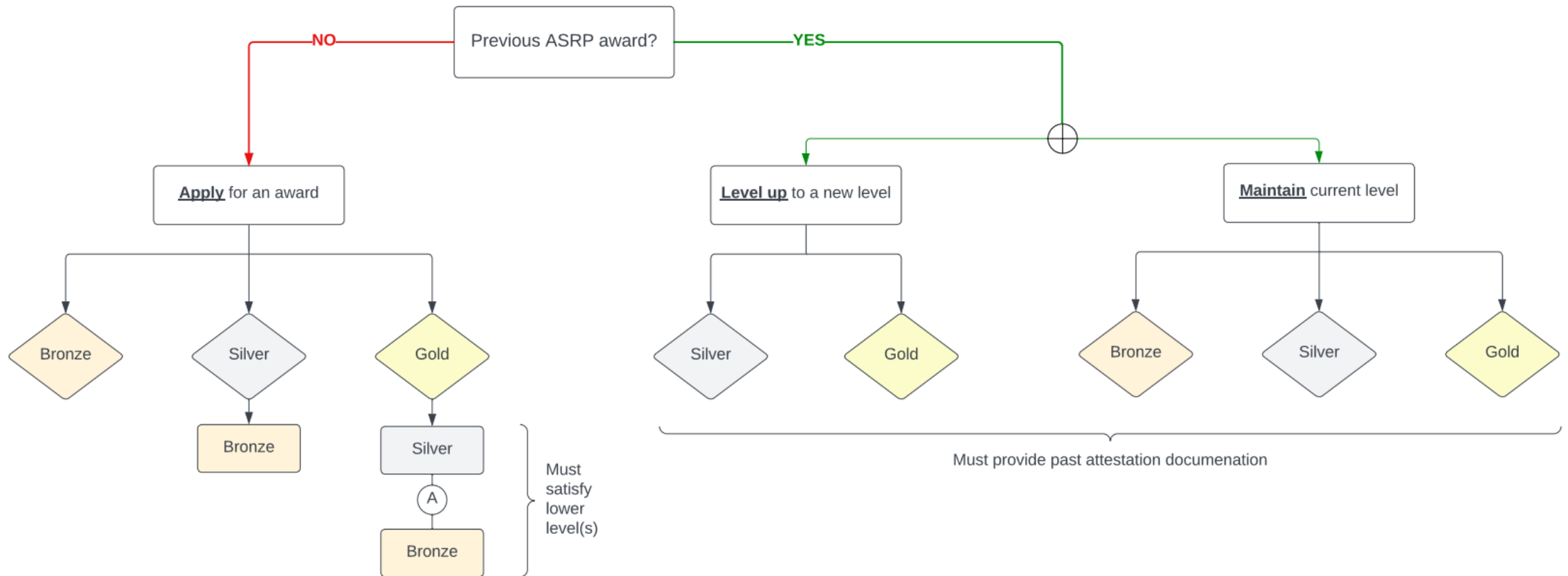
- Leadership
- Accountability
- Drug Expertise
- Action
- Tracking
- Reporting
- Education
- Related items: more formal development of Antimicrobial Stewardship Programs (ASP) in 2014, NJ Department of Health Antimicrobial Stewardship Recognition Program (ASRP) began in 2019, and updates continue to evolve

<https://www.cdc.gov/antibiotic-use/core-elements/index.html>

# Core Elements (CE), Practice Settings, and the Antimicrobial Stewardship Recognition Program (ASRP)

- Acute Care (hospitals, long-term acute care settings)
- Post-Acute Care (long-term care facilities, nursing homes)
- Outpatient (physician offices, clinics, urgent care centers, networks, or independent settings)
- ASRP
  - Three award levels (Bronze, Silver, Gold)
  - New applicants/applications (may apply at any level; must meet all criteria of award level sought and preceding levels)
  - Previous applicants (may remain at current/previous level and provide letter of attestation, with no lapses in award status)
  - Level-up (Upgrade) applicants (must meet criteria requirements of newly sought level only and provide letter of attestation of current/previous level, with no lapses in award status)

# Antimicrobial Stewardship Recognition Process (ASRP) Application Process



# Core Element 1 - Leadership

## Bronze

- Antimicrobial Stewardship Program (ASP) leader with dedicated time and commitment to conduct interventions + letter or memo or job description activities

## Silver

- ASP activities are present in language of leadership job description duties to advance the program and its activities

## Gold

- A budget (beyond funding for staff) is allocated for ASP
- Leadership meetings include ASP activity updates at least every 6 months

# Core Element 2 - Accountability

## Bronze

- The ASP has a designated physician leader, referenced with name, credentials, and title/role

## Silver

- The ASP has a designated non-physician prescribing leader (nurse practitioner, physician assistant), referenced with name, credentials, and title/role (or a Senior Executive Champion (SEC) in the absence of these)

## Gold

- The ASP has a designated nursing leader, referenced with name, credential, and title/role (or a Senior Executive Champion (SEC) in the absence of these)
- ASP has action plan in place with performance improvements

# Core Element 3 – Drug Expertise

## Bronze

- The ASP has a designated pharmacist leader, referenced on the ASP membership list with name, credentials, and title/role

## Silver

- The ASP has a designated pharmacist leader with training and/or experience focused on antimicrobial stewardship (AS), referenced in resume and proof of certificates/training provided

## Gold

- The facility partners with stewardship team at a referral network and communication is furnished regarding information exchange, knowledge, and expertise (identifiers redacted)



# Core Element 4 - Action

## Bronze

- Facility has specific interventions in place to optimize antimicrobial use with respect to related conditions (UTI, SSTI, FI, RI, and GI/CDI)\*
- Facility-specific guidelines/protocols have been developed and implemented

\*UTI=Urinary Tract Infection; SSTI=Skin-Skin Structure Infection; FI=Fungal Infection; RI=Respiratory Infection; GI=Gastrointestinal (illness); CDI = Clostridioides difficile infection

## Silver

- Electronic order system has an automatic alert for duplicative therapy or drug interaction
- Organization/facility participates in a local or national stewardship collaborative (network, CDC, APIC, or similar)\*\*

\*\*CDC=Centers for Disease Control and Prevention; APIC=Association for Professionals in Infection Control and Epidemiology

## Gold

- Rapid diagnostic tests are in place to improve diagnoses and guide appropriate/optimal antimicrobial use, evidenced by laboratory reports (identifiers redacted)

# Core Element 5 - Tracking

## Bronze

- Antimicrobial orders are tracked for drug/class, dose, duration, and diagnosis
- There is at least one aspect of antimicrobial use tracked, which may be adverse drug reactions (ADR), Clostridioides difficile infections, or Methicillin resistant Staphylococcus aureus infections

## Silver

- Antibiotic indications are tracked for antibiotic orders
- Reports include drug/class, dose, duration, diagnosis, and related documentation of signs/symptoms of condition + test results (with redacted identifiers)

\*DOT=days of therapy; DDD=defined daily doses;  
LOT=length of therapy; SAAR=Standardized  
Antimicrobial Administration Ratio

## Gold

- One or more antimicrobial use metric is regularly tracked and calculated (DOT, DDD, LOT, SAAR, patients exposed to antimicrobials per admission, or patients exposed to antimicrobials per all patients)\*

# Core Element 6 – Reporting

## Bronze

- Reports of adverse drug reactions (ADR) and/or antimicrobial use (AU) data are compiled on official facility-specific templates and shared with prescribers

## Silver

- Official reports regarding antimicrobial use are stratified by antimicrobial drug (or class) and condition/illness and shared routinely at designated meetings

## Gold

- Facility has distributed an updated, facility-specific antibiogram to prescribers within the previous year, derived from relevant data obtained within the previous 3 years

# Core Element 7 - Education

## Bronze

- Education to prescribers and staff on optimal antimicrobial prescribing, ADR, and AR, with submission of educational materials + education to patients/family
- Education has speaker name, credentials, title/role, and list of participants with same data + signatures (attendance) + tool(s) for patient/family submitted

## Silver

- There is at least one educational or reference tool available for prescribers to utilize; examples include but not limited to CDC guidelines, standard operating procedures (SOP) for antibiotic use, or prescriber-focused educational resources

## Gold

- ASP staff provides education to nurses and other clinical staff on optimal antimicrobial prescribing, ADR, AR, and submit educational materials as referenced
- Staff have been educated on patient/family communication regarding AS and submit materials

# Antimicrobial Stewardship (AS) References and Toolkits

- Centers for Disease Control and Prevention (CDC) Core Elements - All Settings
  - <https://www.cdc.gov/antibiotic-use/core-elements/index.html>
- Agency for Healthcare Research and Quality (AHRQ) – All Settings
  - <https://www.ahrq.gov/antibiotic-use/index.html>
- Minnesota Department of Health – All Settings
  - <https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/index.html>

# New Jersey Department of Health – Communicable Disease Service References/Contacts

- Website:
- <https://www.nj.gov/health/cds>
- Healthcare-associated Infections/Antimicrobial Resistance (HAI/AR) Unit
  - Antimicrobial Stewardship (AS) Section:
    - Paul Fotiou, PharmD/Antimicrobial Stewardship Coordinator
    - Gargi Patel, PharmD/Infectious Disease Pharmacist
    - Contact: [abxaware@doh.nj.gov](mailto:abxaware@doh.nj.gov)
  - Antimicrobial Stewardship Recognition Program:
    - [https://www.nj.gov/health/cd/edu\\_training/ASP/asp\\_recognition.shtml](https://www.nj.gov/health/cd/edu_training/ASP/asp_recognition.shtml)