CDC Core Elements	Additional IDSA Criteria
Leadership Commitment: Dedicating necessary human, financial and information technology resources. *The 2019 update has additional examples of hospital leadership, and the examples are stratified by "priority" and "other".*	Hospital Mission Statement, if it specifically mentions Antimicrobial Stewardship as a priority. Letter of attestation from Division Chief or C-Suite Executive reflecting leadership commitment and assigned accountability. Print out/screenshot of facility's website that shows leadership title.
Accountability: Appoint a leader or co-leaders, such as a physician and pharmacist, responsible for program management and outcomes. *The 2019 update highlights the effectiveness of the physician and pharmacy co-leadership, which was reported by 59% of the hospitals responding to the 2019 NHSN Annual Hospital Survey.*	Represents having ID Physician Leadership of the ASP, who receive protected time or compensation for their leadership.

Pharmacy Expertise (previously "Drug Expertise"): Appoint a pharmacist, ideally as the co-leader of the stewardship program, to lead implementation efforts to improve antibiotic use.
 	
This Core Element was renamed "Pharmacy Expertise" to reflect the importance of pharmacy engagement for leading implementation efforts to improve antibiotic use.
	Represents having Drug Expertise with ID-trained Pharmacist
	▪ PharmD with **one** of the following:
	  • Three years of clinical pharmacy experience AND AS training course certificate (SIDP/MAD-ID course) AND a letter of endorsement from ID Physician
	  • Completed PGY-1 Residency AND AS training course certificate (SIDP/MAD-ID course)
	  • PGY-2 Residency in ID
	  • ID fellowship

Action: Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use. *The 2019 update has additional examples of interventions which are stratified to "priority" and "other". The "other" interventions are*	Has established protocols, consistent with reporting on antibiotic use and resistance patterns to clinicians, and proven interventions that effectively optimize antimicrobial use.

categorized as infection based, provider-based, pharmacy-based, microbiology-based, and nursing based interventions.	
Tracking: Monitor antibiotic prescribing, impact of interventions, and other important outcomes like C. difficile infection and resistance patterns. *It is important for hospitals to electronically submit antibiotic use data to the National Healthcare Safety Network (NHSN) Antimicrobial Use (AU) Option for monitoring and benchmarking inpatient antibiotic use.*	
Reporting: Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and hospital leadership. *The 2019 update points out the effectiveness of provider level data reporting, while acknowledging that this has not been well studied for hospital antibiotic use.*	Demonstrate effective use of EHR and/or Clinical Decision Support System (CDSS) system as an integral component of the ASP. ▪ Produces reports on overall antibiotic use and trends (antibiotic use measured by using defined daily dosing (DDD) or days of therapy (DOT)). ▪ Produces reports on ASP interventions accepted and actions taken (e.g., percentage of cases where therapy is appropriate, adherence to hospital-specific guidelines, frequency at which de-escalation occurs, appropriate cultures obtained before starting antibiotics, timely administration of appropriate antibiotics for those cases of suspected sepsis, and performance of antibiotic time-outs), and measures of appropriate use and outcome measures such as length of stay, risk-adjusted mortality, hospital-onset *C. difficile* infection rates, adverse drug reactions, and antibiotic-resistance (focusing on hospital onset cases).
Education: Educate prescribers, pharmacists, and nurses about adverse reactions from antibiotics, antibiotic resistance and optimal prescribing. *The 2019 update highlights that case-based education through prospective audit and feedback and preauthorization are effective methods to provide education on antibiotic use. This can be especially powerful when the case-based education is provided in person (e.g., handshake stewardship).*	