CDI Implementation Guide

General Infrastructure, Capacity, and Processes	
Resource	**Website**
Engage the Senior Executive Module - Comprehensive Unit-based Safety Program (CUSP) Toolkit Tools focused on engaging and defining the roles and responsibilities of senior executives in a quality improvement initiative, from the Agency for Healthcare Research and Quality (AHRQ)	http://www.ahrq.gov/professionals/education/curriculum-tools/cusptoolkit/modules/engage/index.html
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of guidelines, recommendations, and tools for reducing CDI, including general strategies to engage executive leadership and boards in CDI prevention efforts (pgs. 11-13), from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI- Toolkit.pdf
Prevent and Manage Infections Safely: *C. difficile* Leadership Fact Sheet Information about the importance of promoting prevention of *C. difficile* for nursing home leadership, from Advancing Excellence in America's Nursing Homes	https://www.nhqualitycampaign.org/files/AE_Factsheet_for_L eadership_Infections.pdf
Stop the Line for Patient Safety Initiative Video describing an initiative that empowers staff to speak up if they see a risk to patient safety, from the U.S. Department of Veterans Affairs	http://www.qualityandsafety.va.gov/StoptheLine/StoptheLine. asp
Road Map to a Comprehensive *Clostridium difficile* Infection (CDI) Prevention Program Facility audit tool for assessment of hospital CDI prevention program, including identification of CDI prevention champions, leadership engagement, and interdisciplinary teams (pg. 3), from the Minnesota Department of Health	http://www.health.state.mn.us/divs/idepc/diseases/cdiff/toolk it/roadmap.pdf
National Action Plan for Combating Antibiotic Resistant Bacteria Developed in response to Executive Order 13676: Combating Antibiotic-Resistant Bacteria—issued by President Barack Obama on September 18, 2014—the National Action Plan outlines steps for implementing the National Strategy for Combating Antibiotic-Resistant Bacteria and addressing the policy recommendations of the President's Council of Advisors on Science and Technology (PCAST).	https://www.whitehouse.gov/sites/default/files/docs/national_action_plan_for_combating_antibotic-resistant_bacteria.pdf
CDC *C. difficile* Prevention Primer Toolkit	http://www.cdc.gov/hai/pdfs/toolkits/CDI-Primer-2-2016.pdf

General Infrastructure, Capacity, and Processes	
Resource	**Website**
CDI NHSN Targeted Assessment for Prevention (TAP) Report Tool LSQIN step-by-step guide on how to run a TAP report in NHSN to determine how many less infections you need to reach your facilities goals.	https://www.lsqin.org/wp-content/uploads/2015/01/CDI-TAP-Report-Tool.pdf
Top Ten Checklist Evidence based interventions provided by American Hospital Association (AHA) , Partnership of Patients, and the Health Research and Educational Trust (HRET)	http://www.whaqualitycenter.org/Portals/0/Partners%20for%20Patients/C%20Difficile/CDIchecklist_2014.pdf
Overview and Evidence to Support Stewardship CDC Get Smart for Healthcare provides an overview, fast facts, antimicrobial stewardship fact sheets, slide sets, and references.	http://www.cdc.gov/getsmart/healthcare/evidence.html
Road Map to a Comprehensive *Clostridium difficile* Infection (CDI) Prevention Program Facility audit tool for assessment of hospital CDI prevention program, including identification of CDI prevention champions, leadership engagement, and interdisciplinary teams (pg. 3), from the Minnesota Department of Health	http://www.health.state.mn.us/divs/idepc/diseases/cdiff/toolk it/roadmap.pdf
National Action Plan for Combating Antibiotic Resistant Bacteria Developed in response to Executive Order 13676: Combating Antibiotic-Resistant Bacteria—issued by President Barack Obama on September 18, 2014—the National Action Plan outlines steps for implementing the National Strategy for Combating Antibiotic-Resistant Bacteria and addressing the policy recommendations of the President's Council of Advisors on Science and Technology (PCAST).	https://www.whitehouse.gov/sites/default/files/docs/national_action_plan_for_combating_antibotic-resistant_bacteria.pdf
Unit/Service Leader Checklist to Improve Hand Hygiene Checklist of strategies that leaders can use to improve hand hygiene on a unit/service, from Johns Hopkins University	http://www.hopkinsmedicine.org/heic/docs/Hand_hygiene_co mpliance_leader_checklist.pdf
Model Stop the Line Policy Sample policy giving all hospital personnel the responsibility and authority to intervene to prevent a patient safety event, from the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/documents/ptsafety/ti meout/stop-the-line-policy.doc

Annual Staff Training	
Resource	**Website**
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of evidence-based research and guidelines, recommendations, tools and resources for reducing CDI and other healthcare-associated infections, from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI- Toolkit.pdf
New Mexico *Clostridium difficile* Prevention Project Nursing Training Module Module intended for nurses, to provide recommendations for practice for patients with CDI; a nursing continuing education certificate is available, from HealthInsight and the New Mexico Hospital Association	https://healthinsight.org/cdif-test
Hand Hygiene Interactive Training Course Course and promotional materials that review key concepts of hand hygiene and Standard Precautions, from CDC	http://www.cdc.gov/handhygiene/training/interactiveEducatio n/
Hand Hygiene: Why, How & When? Guidance on hand hygiene with graphics depicting proper technique and moments for hand hygiene, from the World Health Organization (WHO)	http://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_an d_When_Brochure.pdf?ua=1
Clean Care is Safer Care – Tools for Training and Education Tools for hand hygiene training and education for healthcare personnel, including slide presentations, videos, brochures, and posters, from the World Health Organization (WHO)	http://www.who.int/gpsc/5may/tools/training_education/en/
Hand Hygiene and Gloving Competency Assessment Quiz about hand hygiene and gloving practices that aligns with CDC and World Health Organization (WHO) guidelines, from Colorado Department of Public Health and Environment and partners	https://www.colorado.gov/pacific/sites/default/files/DC_CD_H AI-Hand-Hygiene-and-Gloving-Competency-Assessment- Tool.pdf
Annual Policy Competency Hand Hygiene Checklist Competency checklist for hand hygiene using waterless scrub or hand washing, from Johns Hopkins University	http://pathology.jhu.edu/manuals/Corelab-Procedures-Policies/Annual_Competency_Forms/HandHygiene-v4.pdf
Clostridium difficile Infection Self-learning module Sharp Healthcare April 2011	http://www.sharp.com/instructors-students/upload/C-diff-module-system-copy.pdf
New Cool Bristol Stool Tool	https://www.lsqin.org/wp-content/uploads/2015/01/Cool-Stool-Tool.docx

Annual Staff Training	
Resource	**Website**
Guidance on Contact Precautions for Hospital Visitors Society for Healthcare Epidemiology of America (SHEA) 2015	http://www.shea-online.org/View/ArticleId/353/New-Guidance-on-Contact-Precautions-for-Hospital-Visitors.aspx
Isolation Precautions for Visitors Society for Healthcare Epidemiology of America (SHEA) 2015	http://www.shea-online.org/View/smid/428/ArticleID/354.aspx
WI Healthcare-associated infection (HAIs) website Tutorials are designed to help with some of the more common NHSN functions in real-time, short segments related to NHSN.	https://www.dhs.wisconsin.gov/hai/tutorials.htm
Competency Assessment	
Resource	**Website**
Personal Protective Equipment Training and Competency Assessment	
CDC Personal Protective Equipment Use Poster Poster displaying and describing proper method and sequence for donning and removing personal protective equipment (PPE), from CDC	http://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf
Contact Isolation Skills Competency Checklist Competency assessment checklist for donning and doffing PPE and contact isolation precautions, from the American Association of Nurse Assessment Coordination	http://www.aanac.org/docs/2015-ltc-leader/n-coley_capstonefinal.pdf?sfvrsn=2
Environmental Cleaning Training and Competency Assessment	
Controlling CDI – Environmental Services Cleaning Guidebook Training guide for environmental services staff with content for general infection control principles and specific recommendations for CDI, from the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/Documents/ptsafety/CDICleaning/4.%20Environmental%20Services%20Cleaning%20G uidebook.pdf
HAI Train-The-Trainer: The Role of Environmental Cleaning in Preventing HAIs Video training module discussing best practices for environmental cleaning for prevention of HAIs in the healthcare setting, from the CDC, in collaboration with the Society for Healthcare Epidemiology of America (SHEA) and Avaris Concepts, Inc	http://s108611326.onlinehome.us/day_1f.wmv
APIC 2013 Guide to Preventing Clostridium difficile Infections Section 7 page 54 - 55 Environmental Checklist for Monitoring Terminal Cleaning	http://www.apic.org/Resource_/EliminationGuideForm/e3a85b7e-7ad8-4ab6-9892-54aef516cf10/File/2013CDiffFinal.pdf

Competency Assessment	
Resource	**Website**
Environmental Cleaning Training and Competency Assessment	
Contamination of Health Care Personnel During Removal of Personal Protective Equipment Contamination of the skin and clothing of health care personnel during removal of personal protective equipment (PPE) contributes to dissemination of pathogens and places personnel at risk for infection. December 2015	http://www.ncbi.nlm.nih.gov/pubmed/26457544
Audits	
Resource	**Website**
iScrub Lite – iPhone/iPod Touch App Digital application for recording hand hygiene observations and use of personal protective equipment (PPE), from the University of Iowa	http://compepi.cs.uiowa.edu/iscrub/
WHO Hand Hygiene Observation Form Forms for collecting hand hygiene observations in facilities that have adopted World Health Organization (WHO) hand hygiene guidelines, from World Health Organization (WHO)	http://www.who.int/entity/gpsc/5may/Observation_Form.doc ?ua=1
Hand Hygiene Observation Tool Audit tool for recording healthcare personnel adherence to hand hygiene, from Park Nicollet Methodist Hospital, in partnership with the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/5b_Controlling%20CDI%20Park%20Nicollet%20Methodist%20Hospital%20Hand%20Hygiene%20Auditing%20Tool.pdf
Hand Hygiene/Contact Precautions Monitoring Tool Monitoring tool for recording healthcare personnel adherence to hand hygiene and contact precautions, from United Hospital, in partnership with the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/5a_Controlling%20CDI%20-%20%20United%20Hospital%20Hand%20Hygiene%20Auditing_Tool.pdf
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of guidelines, recommendations, and tools for reducing CDI, including a Hand Hygiene Compliance Audit Tool (pg. 26), from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI-Toolkit.pdf

Audits	
Resource	**Website**
Measuring Hand Hygiene Adherence: Overcoming the Challenges Comprehensive manual about hand hygiene programs, including Examples of Measurement Tools starting on pg. 129, from The Joint Commission and partners	http://www.jointcommission.org/assets/1/18/hh_monograph. pdf
Infections Advancing Excellence in America's Nursing Homes with identify baseline, examine process, and monitor and sustain as three of the seven steps.	https://www.nhqualitycampaign.org/goalDetail.aspx?g=inf#tab2
CDI NHSN Targeted Assessment for Prevention (TAP) Report Tool LSQIN step-by-step guide on how to run a TAP report in NHSN to determine how many less infections you need to reach your facilities goals.	https://www.lsqin.org/wp-content/uploads/2015/01/CDI-TAP-Report-Tool.pdf
Hand Isolation Hygiene Audit for Patient Care Areas Audit tool for recording healthcare personnel adherence to hand hygiene, from University of Minnesota Medical Center in partnership with the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/5c_Controlling%20CDI%20UMMC%20Hand%20Hygiene%20Auditing%20Tool.pdf
Options for Evaluating Environmental Cleaning Elements of programs to assess environmental cleaning processes for HAI prevention, including CDC Environmental Checklist for Monitoring Terminal Cleaning and spreadsheet for data entry and scoring, from CDC	http://www.cdc.gov/hai/toolkits/Evaluating-Environmental- Cleaning.html
Reducing *C. difficile* Infections Toolkit Toolkit based on published guidelines and experiences of the Greater New York Hospital Association / United Hospital Fund *C. difficile* Collaborative, including Assessment of Current Practices to Reduce CDI Tool (pg. 23), CDI Prevention Checklist (pgs. 27-28), Environmental Cleaning Observations Checklist (pgs. 29-30), Hand Hygiene Monitoring Tool (pgs. 45-47)	http://apic.org/Resource_/TinyMceFileManager/Practice_Guidance/cdiff/C.Diff_Digital_Toolkit_GNYHA.pdf

Feedback of Data	
Resource	**Website**
NHSN Resources for MDRO and *C. difficile* Infection Module Protocols and training for National Healthcare Safety Network and the collection of CDI incidence data for reporting and feedback, from CDC	http://www.cdc.gov/nhsn/training/patient-safety-component/
CDI Cause Analysis Worksheet for reviewing CDI cases and adherence to facility policies and practices, including antibiotic review log, from the Massachusetts Coalition for the Prevention of Medical Errors	http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=16&cad=rja&uact=8&ved=0CDoQFjAFOApqFQoTCMmzwJrUxMgCFcJwPgodCeIMxQ&url=http%3A%2F%2Fwww.macoalition.org%2FInitiatives%2Fcdifficile_infections%2Fnov2011%2Fsection12%2FCDI%2520Cause%2520Analysis%2520July%25202011.docx&usg=AFQjCNEvbITyXk30SR6x8uGbzrgMjxCy_6Q
Demo Exercise: LabID Event SIR Instructions from the National Healthcare Safety Network to create, modify, and interpret a *C. difficile* Standardized Infection Ratio (SIR) table, from CDC	www.cdc.gov/nhsn/PDFs/demo/5-LabIDeventSIR.pdf
Hand Hygiene Compliance Immediate Feedback Scripting Script for providing immediate feedback during hand hygiene audits, from University of North Carolina (UNC) Health Care and UNC School of Medicine	http://news.unchealthcare.org/empnews/att/2013/august/hand-hygiene/script-for-hand-hygiene-immediate-feedback
Arizona Antibiogram Toolkit Guidance on preparing an antibiogram and ideas for educating providers about reading and interpreting the antibiogram, from the Arizona Department of Health Services	http://www.azdhs.gov/phs/oids/hai/advisory-committee/documents/antimicrobial-stewardship/antibiogram-toolkit.pdf
Concise Antibiogram Toolkit Guidance for facilities on creating and interpreting an antibiogram, from the Agency for Healthcare Research and Quality (AHRQ)	http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patient-safety-resources/resources/nh-aspguide/module2/toolkit1/cat_sources.pdf

Early Detection, Isolation, Appropriate Testing	
Resource	**Website**
Algorithms for Prevention and Management of *Clostridium difficile* Infections in Long-term Care Facilities Decision-making strategies for enhancing early recognition, testing, and isolation of patients with CDI in long- term care facilities, from the Minnesota Department of Public Health	http://www.health.state.mn.us/divs/idepc/diseases/cdiff/hcp/l tcalgorithms.pdf
***C. difficile* Infection Change Package: Preventing *C. difficile* Transmission and Infection** Compilation of tools, including algorithms for testing and diarrhea decision trees that align with appropriate isolation and testing guidelines (pgs. 12, 13), from the Health Research & Educational Trust (HRET), American Hospital Association (AHA), and Partnership for Patients	http://www.hret-hen.org/topics/cdi/13-14/2014- CDIChangePackage508.pdf
Bristol Stool Form Scale Scale tool that provides an objective way to differentiate between various types of stool forms and recognize diarrhea, from the National Institutes of Health (NIH)	http://bowelcontrol.nih.gov/bristol.aspx
Guidance to Providers: Testing for *C. difficile* Infection Recommendations for CDI testing, including a sample diagnostic algorithm (pg. 2), from Vanderbilt University Medical Center	http://www.mc.vanderbilt.edu/documents/infectioncontrol/files/Guidance%20for%20Providers%20FINAL%202011.pdf
Inter-facility Infection Control Transfer Form Sample form to assist in fostering communication of infectious disease status during transitions of care, from CDC and the Utah Department of Health	http://www.cdc.gov/hai/pdfs/toolkits/InfectionControlTransfe rFormExample1.pdf
Inter-facility Infection Prevention Transfer Form Sample form for communication of infectious disease status, including CDI, during transitions of care, from the Cook County (IL) Department of Public Health	http://www.cookcountypublichealth.org/files/pdf/facility- transfer-form.pdf
Inter-facility Infection Prevention Transfer Tool Sample form for communication of infectious disease status, including CDI, during transitions of care, from the Arizona Department of Health Services	http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=13&cad=rja&uact=8&ved=0CCkQFjACOAo&url=http%3A%2F%2Fwww.health.wyo.gov%2FMedia.aspx%3FmediaId%3D15582&ei=JPBAVeefLYelgwSnoYCYAQ&usg=AFQjCNFjL Dseb0nYOAFvnEuf-jJ1vzEPlw&sig2=9COUg7myzJuq2qI1QdT51Q

Early Detection, Isolation, Appropriate Testing	
Resource	**Website**
New Cool Bristol Stool Tool LSQIN adaption of the Bristol allows you to modify to alert your staff when to initiate isolation and receive orders for testing.	https://www.lsqin.org/wp-content/uploads/2015/01/Cool-Stool-Tool.docx
Guidance on Contact Precautions for Hospital Visitors Society for Healthcare Epidemiology of America (SHEA) 2015	http://www.shea-online.org/View/ArticleId/353/New-Guidance-on-Contact-Precautions-for-Hospital-Visitors.aspx
Isolation Precautions for Visitors Society for Healthcare Epidemiology of America (SHEA) 2015	http://www.shea-online.org/View/smid/428/ArticleID/354.aspx
***C. difficile* Infection (CDI) Change PACKAGE: Preventing Clostridium difficile Transmission and Infection** Antimicrobial stewardship, early and accurate ID and diagnoses, prevention, and hand hygiene interventions provided by American Hospital Association (AHA) , Partnership of Patients, and the Health Research and Educational Trust (HRET)	http://www.whaqualitycenter.org/Portals/0/Partners%20for%20Patients/C%20Difficile/References%20and%20Toolkit/CDI_2014_ChangePackage_FINAL%20(3).pdf
Contact Precautions	
Resource	**Website**
Algorithms for Prevention and Management of *Clostridium difficile* Infections in Long-term Care Facilities Algorithm for implementing Contact Precautions for patients with CDI (pg. 5), from the Minnesota Department of Public Health	http://www.health.state.mn.us/divs/idepc/diseases/cdiff/hcp/ltcalgorithms.pdf
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of guidelines, recommendations, and tools for reducing CDI, including strategies for preventing CDI with hand hygiene (pgs. 19-21), from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI- Toolkit.pdf
Standardization of Isolation Precaution Signage in Washington Implementation Toolkit Sample sign for Contact Precautions for *C. difficile* and FAQs about Contact Enteric Precautions (pg. 16), from the Washington State Hospital Association	http://www.wsha.org/quality-safety/projects/standardization/

Contact Precautions	
Resource	**Website**
APIC 2013 Guide to Preventing Clostridium difficile Infections Section 6 page 37	http://www.apic.org/Resource_/EliminationGuideForm/e3a85b7e-7ad8-4ab6-9892-54aef516cf10/File/2013CDiffFinal.pdf
2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings This document is intended for use by infection control staff, healthcare epidemiologists, healthcare administrators, nurses, other healthcare providers, and persons responsible for developing, implementing, and evaluating infection control programs for healthcare settings across the continuum of care.	http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html
C. difficile **Infection (CDI) Change PACKAGE: Preventing Clostridium difficile Transmission and Infection** Antimicrobial stewardship, early and accurate ID and diagnoses, prevention, and hand hygiene interventions provided by American Hospital Association (AHA) , Partnership of Patients, and the Health Research and Educational Trust (HRET)	http://www.whaqualitycenter.org/Portals/0/Partners%20for%20Patients/C%20Difficile/References%20and%20Toolkit/CDI_2014_ChangePackage_FINAL%20(3).pdf
Hand Hygiene	
Resource	**Website**
Creative Hand Hygiene Programs to Motivate Staff PowerPoint presentation that places hand hygiene activities within theoretical frameworks supporting fun and interactive measures to improve hand hygiene, by Maureen Spencer, RN M. ED, CIC, New England Baptist Hospital	http://www.creativehandhygiene.com/uploads/4/6/4/2/4642325/creative_hand_hygiene_programs_to_motivate_staff_2010.pdf
Controlling CDI: Hand Hygiene Environmental Assessment Tool Assessment tool for placement and use of hand hygiene products in clinical units, including patient rooms, from the Minnesota Hospital Association	http://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/2_Controlling%20CDI%20-%20Hand%20Hygiene%20Environmental%20Assessment%20Tool.docx
Guideline for Hand Hygiene in Health-Care Settings, 2002 Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force	http://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf

Hand Hygiene	
Resource	**Website**
MN Hospital Association Controlling CDI: A Two-Pronged Approach to CDI Prevention Kit includes hand hygiene, environmental cleaning training and supervision, and OR and ED tool kit.	http://www.mnhospitals.org/controllingcdi
Education of Patients and Families	
Resource	**Website**
FAQs about *Clostridium difficile* Fact sheet to educate patients and visitors about CDI, from CDC, the Society for Healthcare Epidemiology of America (SHEA), the Association for Professionals in Infection Control and Epidemiology (APIC), and the American Hospital Association (AHA)	http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/NNL_C-Diff.pdf
***Clostridium difficile* Information for Patients** General information about *C. difficile* and risks associated with antibiotic use for patients, includes Spanish language resources, from CDC	http://www.cdc.gov/hai/organisms/cdiff/Cdiff- patient.html
Infection Control: *C. difficile* Patient education materials for control of transmission of *C. difficile*, with review of hand washing and contact precautions for patients and visitors, from University of Pittsburgh Medical Center	http://www.upmc.com/patients-visitors/education/infection-control/Pages/infection- control-c-difficile.aspx
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of guidelines, recommendations, and tools for reducing CDI, including a Sample Patient/Family Education Q&A form (pg. 24), from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI- Toolkit.pdf
X-Plain Patient Education: *C. difficile* Infections Handout summarizing CDI information for patients, including proper hand hygiene for prevention of transmission (pg. 5), from The Patient Education Institute	http://online.x-plain.com/modules_v3/hospital/hs140102/hs149102.pdf
Clostridium difficile Information for Patients Mayo Clinic's educational information for patients and families	http://www.mayoclinic.org/diseases-conditions/c-difficile/basics/definition/con-20029664
Clostridium difficile Infections Medline Plus Trusted Health Information for You	https://www.nlm.nih.gov/medlineplus/clostridiumdifficileinfections.html

Education of Patients and Families	
Resource	**Website**
Stopping *C. difficile* Infections CDC Vital Signs	http://www.apic.org/Resources/Topic-specific-infection-prevention/Clostridium-difficile
How to be a good Visitor! Infection Prevention and You Patient and families provided by APIC	http://consumers.site.apic.org/infection-prevention-basics/how-to-be-a-good-visitor/
Speak Up: Antibiotics - Know the Facts Taking an antibiotic when you shouldn't kills good bacteria in your body, which can cause you more problems, and your body can become resistant to antibiotics. This short video highlights why and antibiotic is not always needed.	https://www.jointcommission.org/topics/speakup_antibiotics.aspx
Environmental Cleaning	
Resource	**Website**
EPA Registered Antimicrobial Products Effective against *Clostridium difficile* Spores Listing of disinfectant products with sporicidal activity against *C. difficile*, from the Environmental Protection Agency (EPA)	http://www2.epa.gov/pesticide-registration/list-k-epas- registered-antimicrobial-products-effective-against-clostridium
Not Just A Maid Service Video describing how two hospitals engaged their environmental service workers to decrease transmission of CDI, from the Illinois Department of Public Health	http://www.notjustamaidservice.com/
Algorithms for Prevention and Management of *Clostridium difficile* Infections in Long-term Care Facilities Instructions for environmental cleaning and disinfection for patients with CDI (pg. 9), from the Minnesota Department of Public Health	http://www.health.state.mn.us/divs/idepc/diseases/cdiff/hcp/l tcalgorithms.pdf
***Clostridium difficile* Infection (CDI) Toolkit – A Healthcare Professional's Guide to Preventing CDIs** Compilation of guidelines, recommendations, and tools for reducing CDI, including strategies for environmental cleaning (pgs. 22-23) and a CDC Environmental Checklist for terminal cleaning (pg. 27), from the Centers for Medicare & Medicaid Services (CMS) Quality Improvement Organizations (QIOs) and Qsource.org	http://www.qsource.org/wp-content/uploads/D5-CDI- Toolkit.pdf
APIC 2013 Guide to Preventing Clostridium difficile Infections Section 7 page 50	http://www.apic.org/Resource_/EliminationGuideForm/e3a85b7e-7ad8-4ab6-9892-54aef516cf10/File/2013CDiffFinal.pdf

Environmental Cleaning	
Resource	**Website**
The Guidelines for Environmental Infection Control in Health-Care Facilities, 2003 This guideline is a compilation of recommendations for the prevention and control of infectious diseases that are associated with healthcare environments.	http://www.cdc.gov/hicpac/pdf/guidelines/eic_in_HCF_03.pdf
CDC Options for Evaluating Environmental Cleaning All hospitals that have successfully achieved a Level I program should advance to Level II if continued high rates.	http://www.cdc.gov/HAI/pdfs/toolkits/Environ-Cleaning-Eval-Toolkit12-2-2010.pdf
MN Hospital Association Controlling CDI: A Two-Pronged Approach to CDI Prevention Kit includes hand hygiene, environmental cleaning training and supervision, and OR and ED tool kit.	http://www.mnhospitals.org/controllingcdi
Clorox *Clostridium Difficile* Prevention Tool Kit To help you fight the spread of *Clostridium difficile*, we have developed *C. difficile* Prevention Tool Kits, which contain training and implementation tools. They can be downloaded to your computer or mailed to you.	https://www.cloroxprofessional.com/industry/health/free-resources/?clostridiumDifficilePreventionToolKit=yes
EPA Registered Antimicrobial Products Effective against *Clostridium difficile* Spores Listing of disinfectant products with sporicidal activity against *C. difficile*, from the Environmental Protection Agency (EPA)	http://www2.epa.gov/pesticide-registration/list-k-epas- registered-antimicrobial-products-effective-against-clostridium
Antibiotic Stewardship	
Resource	**Website**
Get Smart for Healthcare – Implementation Resources Resources to assist in the implementation of hospital antibiotic stewardship programs, including guidelines, assessment tools, conceptual models, and a sample inter-facility infection control transfer form, from CDC	http://www.cdc.gov/getsmart/healthcare/implementation.htm l
Get Smart for Healthcare – Stewardship Program Examples Links to hospital stewardship programs at various hospitals, success stories, and an interactive collection of charts and maps summarizing national and subnational data on antimicrobial use and resistance (Resistance Map), from CDC	http://www.cdc.gov/getsmart/healthcare/programs.html
Get Smart for Healthcare - Checklist for Core Elements of Hospital Antibiotic Stewardship Programs A checklist to evaluate hospital antibiotic stewardship programs, from CDC	Checklist for Core Elements of Hospital Antibiotic Stewardship Programs | Get Smart for Healthcare | CDC

Antibiotic Stewardship	
Resource	**Website**
Antimicrobial Stewardship Toolkit Best practices from an Antimicrobial Stewardship Collaborative, from the Greater New York Hospital Association and the United Hospital Fund	http://www.shea-online.org/Portals/0/GNYHA_Antimicrobial_Stewardship_Toolk it_FINALv2%20Dec2011.pdf
Toolkit for Reduction of Clostridium difficile Infections Through Antimicrobial Stewardship: Possible Methods for Evaluating Antibiotic Use Table of possible metrics to use for measurement and evaluation of antibiotic use, from the Agency for Healthcare Research and Quality (AHRQ)	http://www.ahrq.gov/professionals/quality-patient- safety/patient-safety-resources/resources/cdifftoolkit/cdiffl2tools2c.html
Toolkit for Reduction of Clostridium difficile Infections Through Antimicrobial Stewardship: Medication Use Evaluation Template Sample template for reviewing antibiotic use patterns, including graphic comparisons over time, from the Agency for Healthcare Research and Quality (AHRQ)	http://www.ahrq.gov/professionals/quality-patient- safety/patient-safety-resources/resources/cdifftoolkit/cdiffl2tools4d.html
Antibiotic Streamlining – Sample Pharmacist's Daily Routine Sample pharmacist's daily routine for reviewing and streamlining antibiotic use, from the Society for Healthcare Epidemiology of America (SHEA)	http://www.shea-online.org/Assets/files/kuper/Sample_Daily_Routine_Checklist_K__Kuper.pdf
Drug Use Evaluation Form A template form that antibiotic stewardship committees can use to evaluate antibiotic use, from the Society for Healthcare Epidemiology of America (SHEA)	http://www.shea-online.org/Assets/files/other_papers/Drug_Use_Evaluable_For m.pdf
CDI Awareness Campaign Challenge #2: Antibiotic Stewardship Self-assessment to help facilities assess their current state of antibiotic stewardship and choose action oriented challenges to address from Kepro Ohio Quality Improvement Organization	http://www.ohiokepro.com/cdi/pdfs/CDI_change2_508.pdf
Arizona Antibiogram Toolkit Guidance on preparing an antibiogram and ideas for educating providers about reading and interpreting the antibiogram, from the Arizona Department of Health Services	http://www.azdhs.gov/phs/oids/hai/advisory-committee/documents/antimicrobial-stewardship/antibiogram-toolkit.pdf
Concise Antibiogram Toolkit Guidance for facilities on creating and interpreting an antibiogram, from the Agency for Healthcare Research and Quality (AHRQ)	http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patient-safety-resources/resources/nh-aspguide/module2/toolkit1/cat_sources.pdf

Antibiotic Stewardship	
Resource	**Website**
CDC Core Elements of Hospital Antibiotic Stewardship Lists practical ways to initiate or expand antibiotic stewardship activities in hospitals.	http://www.cdc.gov/getsmart/healthcare/implementation/core-elements.html
The Core Elements of Antibiotic Stewardship for Nursing Homes Adapts the CDC Core Elements of Hospital Antibiotic Stewardship into practical ways to initiate or expand antibiotic stewardship activities in nursing homes.	http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html
CDC Informatics: Antimitotic Stewardship in Nursing Homes	http://www.cdc.gov/longtermcare/pdfs/infographic-antibiotic-stewardship-nursing-homes.pdf
CDC Leading Antibiotic Stewardship in Nursing Homes	http://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-leading-antibiotic-stewardship.pdf
Creating a Culture to Improve Antibiotic Use in Nursing Homes	http://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-creating-culture-improve-use.pdf
Nursing Home Antimicrobial Stewardship Modules Includes four tested, evidence-based toolkits to help optimize antibiotic use in nursing homes. The modules are intended to assist nursing homes develop antimicrobial programs.	http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/nh-aspguide/index.html
The Development of Minimum Criteria for the Initiation of Antibiotics in Residents of Long-Term-Care Facilities: Results of a Consensus Conference (aka Loeb criteria). Deciding when to initiate antibiotics can be particularly challenging but this article guides when antibiotic use is appropriate.	http://www.jstor.org/stable/10.1086/501875?seq=1#page_scan_tab_contents
2013 Antibiotic Resistant Threat Report Many of the most urgent and serious antibiotic-resistant bacteria CDC warned of in the threaten patients while they are being treated in healthcare facilities for other conditions. Four Core Actions to Prevention antibiotic Resistance is found on page 31.	http://www.cdc.gov/drugresistance/threat-report-2013/index.html
Antimicrobial Stewardship: A Collaborative Partnership between Infection Preventionists and Health Care Epidemiologists American Journal of Infection Control 40 (2012) 94-5	http://www.ahaphysicianforum.org/resources/appropriate-use/antimicrobial/content%20files%20pdf/APIC_SHEA_Antimicrobial_Stewardship_Position_Statement.pdf

Antibiotic Stewardship	
Resource	**Website**
Antibiotic Stewardship Driver Diagram and Change Package The Centers for Disease Control and Prevention (CDC) and the Institute for Healthcare Improvement (IHI) partnered in an effort to develop this conceptual model of key drivers for reducing inappropriate antibiotic utilization.	http://www.cdc.gov/getsmart/healthcare/pdfs/antibiotic_stewardship_change_package.pdf
Antibiotic Stewardship Driver Diagram Assists in understanding primary and secondary drivers to timely and appropriate antibiotic utilization.	http://www.cdc.gov/getsmart/healthcare/pdfs/antibiotic_stewardship_driver_diagram.pdf
Antibiotic Stewardship Measurement Framework This document describes selected measures that could be used to measure the change concepts summarized in the Antibiotic Stewardship Drivers and Change Package.	http://www.cdc.gov/getsmart/healthcare/pdfs/antibiotic_stewardship_measurement_framework.pdf
Optimizing Antimicrobial Therapy with Timeouts National organizations, including the CDC and the Joint Commission, advocate for a formal "Antibiotic Timeout" to reassess empiric antibiotics 48-72 hours after their initiation.	https://med.stanford.edu/cme/courses/online/optimizing-antimicrobial-therapy.html
APIC 2013 Guide to Preventing Clostridium difficile Infections Section 10 page 73 – A Primer for the Infection Preventionist	http://www.apic.org/Resource_/EliminationGuideForm/e3a85b7e-7ad8-4ab6-9892-54aef516cf10/File/2013CDiffFinal.pdf
***C. difficile* Infection (CDI) Change PACKAGE: Preventing Clostridium difficile Transmission and Infection** Antimicrobial stewardship, early and accurate ID and diagnoses, prevention, and hand hygiene interventions provided by American Hospital Association (AHA) , Partnership of Patients, and the Health Research and Educational Trust (HRET)	http://www.whaqualitycenter.org/Portals/0/Partners%20for%20Patients/C%20Difficile/References%20and%20Toolkit/CDI_2014_ChangePackage_FINAL%20(3).pdf
Toolkit for Reduction of Clostridium difficile Infections Through Antimicrobial Stewardship: The Evaluation and Research on Antimicrobial Stewardship's Effect on Clostridium difficile (ERASE *C. difficile*) Project An antimicrobial stewardship program (ASP) is a systematic approach to developing coordinated interventions to reduce overuse and inappropriate selection of antibiotics, and to achieve optimal outcomes for patients in cost-efficient ways. This toolkit assists hospital staff and leadership in developing an effective ASP with the potential to reduce *C. difficile.*	http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/cdifftoolkit/index.html

Antibiotic Stewardship	
Resource	**Website**
Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America Antimicrobial Stewardship: Implementation Tools & Resources This section provides additional resources for individuals interested in antimicrobial stewardship programs, including Materials and Forms, US Academic Medical Centers Online Stewardship Resources, International Online Stewardship Resources, and Other Resources.	http://www.shea-online.org/PriorityTopics/AntimicrobialStewardship/ImplementationToolsResources.aspx
Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America Guidelines for Developing an Institutional Program to Enhance Antimicrobial Stewardship This document presents guidelines for developing institutional programs to enhance antimicrobial stewardship, an activity that includes appropriate selection, dosing, route, and duration of antimicrobial therapy. 2007	http://cid.oxfordjournals.org/content/44/2/159.short
The Role of Antimicrobial Management Programs in Optimizing Antibiotic Prescribing within Hospitals Managing serious infections is a balance between providing timely and appropriate broad-spectrum empirical therapy for individual patients, which has been consistently shown to improve outcomes, and reducing unnecessary use of antimicrobial agents, which may contribute to the development of antimicrobial resistance. 2006	http://cid.oxfordjournals.org/content/42/Supplement_2/S90.full.pdf+html
Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America Antimicrobial Stewardship: Implementation Tools & Resources This section provides additional resources for individuals interested in antimicrobial stewardship programs, including Materials and Forms, US Academic Medical Centers Online Stewardship Resources, International Online Stewardship Resources, and Other Resources.	http://www.shea-online.org/PriorityTopics/AntimicrobialStewardship/ImplementationToolsResources.aspx
Implementing an Antibiotic Stewardship Program : Guidelines by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA), 2016 Evidence-based guidelines for implementation and measurement of antibiotic stewardship interventions in inpatient populations including long-term care were prepared by a multidisciplinary expert panel	http://cid.oxfordjournals.org/content/early/2016/04/11/cid.ciw118.full

Antibiotic Stewardship	
Resource	**Website**
A Path to Better Antibiotic Stewardship in Inpatient Settings Provided by the Pew Charitable Trust, 10 case studies map how to improve antibiotic use in acute and long-term care facilities	http://www.pewtrusts.org/en/research-and-analysis/reports/2016/04/a-path-to-better-antibiotic-stewardship-in-inpatient-settings
Facilitators and barriers to implementing antimicrobial stewardship strategies: Results from a qualitative study Published in 2014 by the American Journal of Infection Control provides several factors that may influence ASP success in the implementation of strategies.	http://www.ajicjournal.org/article/S0196-6553(14)00734-2/abstract
Laboratory Practices	
Resource	**Website**
Sample Clostridium difficile Infection (CDI) Orders	http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/cdiff/CDifficileInfectionCDIOrdersandCDifficileToxinScreeningandOrders.pdf
***Clostridium difficile* Infection (CDI) Prevention Collaborative Laboratory Testing Information** Overview of *C. difficile* laboratory tests with table comparing tests on pg. 2, from the Florida Department of Health	http://www.fadona.org/CDILabTestInfoSheet122210.pdf
A Practical Guidance Document for the Laboratory Detection of Toxigenic *Clostridium difficile* Recommended practices and sample algorithms for *C. difficile* laboratory testing, from the American Society for Microbiology (ASM)	http://www.asm.org/images/pdf/Clinical/clostridiumdifficile9- 21.pdf
Guidance to Providers: Testing for *C. difficile* Infection Recommendations for CDI testing, including a sample diagnostic algorithm (pg. 2), from Vanderbilt University Medical Center	http://www.mc.vanderbilt.edu/documents/infectioncontrol/files/Guidance%20for%20Providers%20FINAL%202011.pdf
FAQ on Testing Asymptomatic Patients for *C. difficile* An article out of the American Journal of Infection Control, said that testing patients with three risk factors upon hospital admission has potential to identify nearly three out of four asymptomatic carriers of *C. difficile* at their institution. Given that CDC does not currently recommend testing of asymptomatic patients for *C. difficile*, FAQs on this issue was created.	http://www.apic.org/Resource_/TinyMceFileManager/FAQ_on_Testing_Asymptomatic_Patients_for_Cdiff_04262013.pdf

Laboratory Practices	
Resource	**Website**
IP Collaboration Project This Educational Toolkit has been developed by the Association for Professionals in Infection Control and Epidemiology (APIC) and the American Society for Microbiology (ASM).	http://labproject.site.apic.org/files/2012/11/Final-Draft-of-Lab-Toolkit-v21.pdf
CDC Clinician Guide for Collecting Cultures	http://www.cdc.gov/getsmart/healthcare/implementation/clinicianguide.html
New Cool Bristol Stool Tool LSQIN adaption of the Bristol allows you to modify to alert your staff when to initiate isolation and receive orders for testing.	https://www.lsqin.org/wp-content/uploads/2015/01/Cool-Stool-Tool.docx

Also refer to the following guidelines:

- APIC 2013 Guide to Preventing *Clostridium difficile* Infections: Preventing Transmission of *Clostridium difficile* in Healthcare Settings Fishbone Diagram
  http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/cdiff/2013_C__diff_final_Fishbone_Diagram_11x17.pdf
- Clinical Practice Guidelines for Clostridium difficile Infection in Adults: 2010 Update by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA):
  http://www.cdc.gov/HAI/pdfs/cdiff/Cohen-IDSA-SHEA-CDI-guidelines-2010.pdf
- Healthcare-associated Infections (HAI) Progress Report (See page 130 for overall WI Fact sheet):
  http://www.cdc.gov/hai/surveillance/progress-report/index.html
- Antibiotic Resistance Patient Safety Atlas:
  http://www.cdc.gov/hai/surveillance/ar-patient-safety-atlas.html

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