Overview of NC DPH Stewardship Activities with a focus on the STAR Partners Initiative

James Lewis
Medical Director NC SHARPPS Program

August 13, 2018
NC SHARPPS Program

• North Carolina Surveillance of Healthcare Associated and Resistant Pathogens Patient Safety Program

Jennifer MacFarquhar
Program Director

James Lewis
Medical Director

Heather Dubendris
Epidemiologist

Katie Steider
Epidemiologist

Coming Soon!
Health Educator, Campaigns Coordinator

Savannah Carrico
Epidemiologist

Coming Soon!
Epidemiology Program Manager
NC SHARPPS Stewardship Resources and Activities

• Be Antibiotics Aware: Smart Use Best Care
• AMR Challenge
• Promotion/Development of Provider tools
• Education/Presentations
• STewardship of Antimicrobial Resources Partners
Be Antibiotics Aware

• CDC campaign with State partners

• Antibiotics Awareness week
  • Competition
  • Awareness
2017 NC Get Smart Kids’ Artwork Competition

Winners

The NC Get Smart Campaign thanks all children who participated in the second annual NC Get Smart Kids’ Artwork Competition. The winners’ artwork will be used as official posters for the NC Get Smart Campaign. Look for the posters in doctor’s offices and school health centers across the state.

Congratulations to the winners of the 2017 Get Smart Kids’ Artwork Competition!
3rd-5th Grade Winner: Emma DeJoseph

STAND FIRM: USE THE RIGHT DRUG FOR THE RIGHT GERM!

Artwork submitted by 3rd grader, Emma DeJoseph of Zebulon, NC, Winner of the 2017 NC Get Smart Artwork Competition

BE ANTIBIOTICS AWARE: SMART USE, BEST CARE

For more information, visit the NC Get Smart Campaign:
http://epi.publichealth.nc.gov/cd/antibiotics/campaign.html
An antibiotic is a special medicine that stops germs called bacteria from causing bad things to happen to you. When the antibiotic does not match, the bacteria will continue to hurt you.

So, do not overuse or misuse antibiotics, the bacteria will change its genes and be unstoppable.

Antibiotics are your knights in shining armor. Take them right, and they'll protect you.
6th-8th Grade
Winner:
Lauren Tadych

BE ANTIBIOTICS AWARE: SMART USE, BEST CARE

Artwork submitted by 8th grader, Lauren Tadych of Raleigh, NC, Winner of the 2017 NC Get Smart Artwork Competition

For more information, visit the NC Get Smart Campaign:
http://epi.publichealth.nc.gov/cd/antibiotics/campaign.html
6th-8th Grade Winner:
Tessa McElreath

Artwork submitted by 8th grader, Tessa McElreath of Raleigh, NC, Winner of the 2017 NC Get Smart Artwork Competition

BE ANTIBIOTICS AWARE:
SMART USE, BEST CARE

For more information, visit NC Get Smart Campaign: http://epi.publichealth.nc.gov/cd/antibiotics/campaign.html
BE ANTIBIOTICS AWARE: SMART USE, BEST CARE

SAVE THE DRUGS FOR THE SCARY BUGS

Artwork submitted by 11th grader, Mallori Mull of Mount Holly, NC, Winner of the 2017 NC Get Smart Artwork Competition

For more information, visit the NC Get Smart Campaign:
http://epi.publichealth.nc.gov/cd/antibiotics/campaign.html
NC Be Antibiotics Aware

• FREE materials available
  • https://epi.publichealth.nc.gov/cd/antibiotics/campaign.html

• nchai@dhhs.nc.gov

• Further materials available from CDC:
  • https://www.cdc.gov/antibiotic-use/week/educational-resources/index.html
  • Patient oriented, implementation, education
AMR Challenge

• NC DPH will be making a commitment
• Many NC facilities already have

To participate in the AMR Challenge, submit a commitment in at least one of five commitment areas:

- **Tracking and data**: Share data and improve data collection
- **Infection prevention and control**: Reduce the spread of resistant germs
- **Antibiotic use**: Improve appropriate antibiotic use, including ensuring access to these drugs
- **Environment and sanitation**: Decrease antibiotics and resistance in the environment, including improving sanitation
- **Vaccines, therapeutics, and diagnostics**: Invest in development and improved access
Promotion/Development of Provider Tools

• Website
  • https://epi.publichealth.nc.gov/cd/antibiotics/stewardship.html
  • https://epi.publichealth.nc.gov/cd/antibiotics/campaign.html
  • https://epi.publichealth.nc.gov/cd/diseases/antibiotics.html
  • https://epi.publichealth.nc.gov/cd/providers.html#antibiotics
Acute uncomplicated bronchitis 19
Viruses cause >90% of acute bronchitis.
Cough typically lasts 3 to 6 weeks, up to 6 weeks.

Diagnosis
- Most acute uncomplicated bronchitis is viral.
- Influenza and respiratory syncytial virus (RSV) are most common.
- Influenza most likely to be viral.
- Viral etiology most likely in children.
- Bacterial etiology is more common in adults.

Management
- Primary care for uncomplicated bronchitis.
- Supportive care: rest, fluids, analgesics, expectorants.
- Antibiotics: azithromycin 500 mg PO once daily for 5 days.
- Bronchodilators: albuterol or tiotropium bromide.

Acute streptococcal pharyngitis

Pharyngitis

Group A Streptococcus (GAS) is the only common indication for antibiotics.
Only 5% to 10% of adults are caused by GAS.

Diagnosis
- Clinical symptoms alone are not sufficient for diagnosis.
- GAS pharyngitis is a confirmatory test for GAS pharyngitis.
- GAS pharyngitis is confirmed by GAS culture or rapid diagnostic tests.
- GAS pharyngitis is treated in adults with narrow spectrum penicillin.

Management
- Antibiotic treatment is NOT recommended for patients with negative rapid test results.
- GAS resistance to clindamycin and azithromycin in GAS pharyngitis is uncommon.
- First-line therapy for GAS is penicillin.
- Dose: 250 mg PO every 8 hours for 10 days.
- For penicillin allergy: erythromycin 500 mg PO twice daily for 10 days.
- Doxycycline 100 mg PO twice daily for 10 days.
- Amoxicillin 500 mg PO twice daily for 10 days.

Prevention
- Hand hygiene: washing hands with soap and water for 20 seconds or using alcohol-based hand sanitizer.
- Social distancing: maintaining a distance of at least 6 feet from others.
- Mask-wearing: wearing a mask in public settings and during certain activities.
- Avoiding close contact: avoiding close contact with others when sick.

Adult Outpatient Antibiotic Prescribing Guidelines

Acute otitis media (AOM) 20

4% to 10% of children with AOM treated with antibiotics experience no effects.

Diagnosis
- Definitions: diagnosis requires otitis media and acute or ever otitis media.
- Signs and symptoms: fever, otalgia, irritability, vomiting, hearing loss.
- Physical examination: red tympanic membrane, clear to yellow fluid.

Management
- Oral antibiotics are the treatment of choice.
- Azithromycin 10 mg/kg PO once daily for 5 days.
- Amoxicillin 500 mg PO / 250 mg PO twice daily for 10 days.

Pharyngitis

During winter and spring, up to 20% of asymptomatic children can be cultured with GAS. GAS AOM is the leading cause of AOM.

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Promotion/Development of Provider Tools

Section 1, Modules 1, 2, and 3 – Antibiotic Resistance, Antibiotic Stewardship, and Antibiotic Adverse Events

To access this content, you first need to create an account. If you already have an account, please login.

https://www.train.org/cdctrain/course/1075730/compilation

Course Description Information
This interactive web-based activity is the first of four sections designed to help clinicians optimize antibiotic use to combat antibiotic resistance and improve healthcare quality and patient safety. This course will include information about antibiotic resistance and threats and a detailed explanation of the benefits of antibiotic stewardship. Additionally, this course will discuss risks and benefits of antibiotics, with a focus on the
Education/Presentations

- Variety of healthcare professionals
- Conferences
- Webinars
STAR Partners Overview

• STewardship of Antimicrobial Resources Partners

• Goals:
  • Improve Health and safety of NC citizens
  • Encourage and motivate healthcare facilities to promote and implement stewardship interventions.
  • Track Stewardship interventions implemented in NC
  • Identify high impact interventions

• Modus Operandi:
  • Certificate and recognition program
    • Website, social media, newsletter features
  • Three recognized tiered levels + introductory level
Antibiotic Stewardship in Acute Care Hospitals by State | 2016

NATIONAL 2016 PERCENTAGE

64%
3057 Facilities meeting all 7 elements
4764 National survey respondents

NORTH CAROLINA 2016 PERCENTAGE

79%
89 Facilities meeting all 7 elements
112 State survey respondents

AE, AP, AS, GU, VI data are not shown due to 7 or fewer hospital respondents but are included in the overall percentage.
STAR Partners Requirements

• Requirements for each level tiered based on resources required for implementation
  • Outlined on our website in the Checklist and Requirements documents
  • Modeled for attainability of Level 2 by any facility

• Based upon CDC’s 7 core elements of Hospital Stewardship
  • Additional resources: SHEA Stewardship Training Course, CDC online Stewardship Training, review of SHEA/IDSA stewardship guides, primary literature review, input from AR/AS subcommittee, precedent initiatives form other states.
STAR Partners Requirements

• FAQs
  • Application for entire Healthcare system v individual facilities?
    • Depends
  • What trainings qualify for Stewardship?
    • CDC's Antibiotic Stewardship Training Series
    • SHEA Antibiotic Stewardship Training Course
    • SIDP
    • MAD-ID
    • IDSA LEAP Fellowship graduates
  • How often do you need to re-certify?
    • 5 years
  • What do I need to submit to apply?
    • Appropriate letter & supporting documentation of activities
Georgia Honor Roll for Antibiotic Stewardship

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<th>Gold</th>
<th>Silver</th>
<th>Bronze</th>
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Minnesota Antibiotic Stewardship Acute Care and Critical Access Honor Roll: Minnesota Antibiotic Stewardship

Gold Level

- Gold Level hospitals are recognized for looking beyond their facility to practice antibiotic stewardship in a collaborative way. Collaborative activities are highlighted below.
- Gold Level hospitals have also achieved Bronze and Silver Level requirements for commitment and action.

2018 Minnesota Antibiotic Stewardship Acute Care and Critical Access Hospital Gold Level Honor Roll Honorees

Avera Marshall Regional Medical Center

- **Physician Leader:** Justin Hartman, DO
- **Pharmacist Leader:** Rachelle Kunde, PharmD, BCACP
- **Additional Antibiotic Stewardship Action:** Avera Marshall participates daily in a weekday video conference call that serves to connect Avera Health system-level physicians and pharmacists with pharmacists throughout the Avera system. Participants review patient cases together, helping local pharmacists assist providers in making antimicrobial treatment decisions.
- **Highlighted Collaborative Activity:** Avera Marshall distributes CDC Get Smart patient education materials to local outpatient clinics, and provides long-term care facilities with nurse and provider education, resident and family education (e.g. family night, brochures), and pharmacist evaluation for antimicrobial appropriateness.
STAR Partners Future Directions

• Expand to other Healthcare Settings
  • *Next: Long Term Care v Outpatient*
    • *Love to hear your opinion!*
  • Subsequent: Dentistry, Dialysis

• Use data to attempt to quantify impact
  • STAR Partners annual survey, CDI NHSN data, CRE surveillance data
  • Stewardship program growth
  • Interventions with higher impact
Questions?