# Society for Infectious Disease Pharmacists (SIDP): Quality Improvement (QI) Projects Overview

August 13, 2024

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## Housekeeping

- Who's in the room today? (Name, facility, role)
- Your line has been muted upon entry to eliminate any background noise during today's presentation.
  - A reminder that if you have dialed in, please do not place the call on hold as we may hear your "hold" music.
- We encourage questions and open discussion.
- Please utilize the Chat box to type in your questions or comments.
- This event is being recorded.

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# Agenda

- Society of Infectious Diseases Pharmacists (SIDP) Antimicrobial Stewardship Certificate Training Program Overview
- Quality Improvement Project Presentations
- Q&A

IHC | IOWA HHS

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# Flex Program Areas

*Required in order to participate in other activities.*

**Quality Improvement**

The quality improvement area includes MBQIP data. **Submitting MBQIP data is the only requirement for critical access hospitals to participate in the Flex Program.** If critical access hospitals meet the MBQIP reporting requirements, they are automatically able to participate in Flex Program activities.

Iowa Healthcare Collaborative sends MBQIP reports to hospitals and provides technical assistance, webinars/calls, and live events related to quality improvement.

**Financial Improvement**

HomeTown Health provides financial improvement webinars, triage resources, live meetings, comparative dashboards, in-depth assessments and action planning, and peer assistance.

**Operational Improvement**

HomeTown Health provides operational improvement webinars, live meetings, comparative dashboards, in-depth assessments and action planning, and peer assistance.

**Population Health**

Iowa Healthcare Collaborative provides community health needs assessment technical assistance webinars. The Iowa Department of Public Health provides individual technical assistance with community health needs assessments and health improvement plans.

*Can participate in these activities if quality improvement requirements are met.*

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# Certificate Overview

| | |
|---|---|
| **Part 1:**<br>**Core Content**<br>**12 CE hours** | • **Goal:** provide foundational knowledge relevant for antibiotic stewardship<br>• Self-paced, asynchronous, on-demand learning<br>• Speakers - proven clinicians/educators with national name recognition within ID |
| **Part 2*:**<br>**Application**<br>**Minimum 4.25h required** | • **Goal:** expand general stewardship principles to acute care and outpatient settings<br>• Self-paced, asynchronous, on-demand learning<br>• Speakers – clinical with expertise in specific settings |
| **Part 3:**<br>**QI module – 1 CE h**<br>**Project - 10 CE hours** | • **Goal:** apply knowledge gained in Parts 1, 2, & 3 module (required for ACPE certificate)<br>• Live office hours (optional) with volunteers from SIDP Stewardship Committee |

SIDP | Antimicrobial Stewardship Certificate Program

**8.25h available*

SIDP Website (Link)

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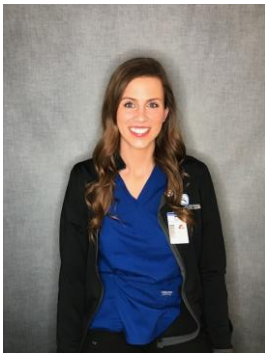
# Presenting

**Jordan Wagner, PharmD**
*Director of Pharmacy*
Van Diest Medical Center

**Katie Koehn, RPh, PharmD, BCPS**
*Pharmacist/Rural Pharmacy Coordinator*
Mercy One Dubuque Medical Center



**Emily Hummel, PharmD, BCPS**
*Staff Pharmacist*
Cherokee Regional Medical Center

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# SIDP QI Project Overview

JORDAN WAGNER, PHARMD

VAN DIEST MEDICAL CENTER
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## Hospital Overview

- Van Diest Medical Center
  - Hamilton County Public Hospital
  - Critical Access Hospital
- Location: Webster City, Iowa
- Size: 25 beds

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# Antimicrobial Stewardship Program Overview

- Antibiotic Stewardship Program Leader: Jordan Wagner, PharmD
- Members:
  - Owner – Department of Pharmacy
  - Executive Sponsor – Chief Nursing Officer (CNO)
  - Provider Champion – Medical Doctor (MD)
  - Director of Quality – Registered Nurse (RN)
  - Infection Prevention – RN
  - MedSurg Manager – RN
  - Emergency Department (ED) Manager – RN
  - Surgery Manager – RN
  - Clinic Managers – RNs
  - Ad Hoc – Nursing leadership, Informatics, Laboratory
- Support for our program:
  - Department of Nursing: CNO
  - Medical Staff: Chief of Staff
  - Administration: Chief Executive Officer (CEO)
  - Van Diest Medical Center Board of Trustees

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# Project Overview

- **Retrospective review of identified target and intervention**
  - De-escalation/streamlining
- **Problem Identified:**
  - High Broad Spectrum Antibiotic Use
    - Need more timely narrowing of antibiotics
    - Susceptibilities
- **Target:**
  - Decreasing broad spectrum antibiotic use
    - Narrowing antibiotics
    - Look at susceptibilities
  - Initially looking for a 20% decrease in broad spectrum antibiotic use
    - Broad-spectrum antibiotic use days of therapy / total days of therapy
- **Measurement:**
  - Evaluate initial antibiotics for each patient on MedSurg floor
  - Look for susceptibility results
  - Initiate step-down therapy
- **Interventions:**
  - Completed susceptibility reports sent to provider and stewardship leader
  - Education of 48 – hour antibiotic time-out alert
- **Involvement:**
  - MedSurg Department
  - Nursing staff
  - Providers
  - Antibiotic Stewardship Team
  - Pharmacists
  - Laboratory
  - Information Technology (IT)

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# Interventions

- **48-hour antibiotic time-out alert**
  - Electronic Medical Record (EMR) driven
  - Little Provider utilization
  - Education at Medical Staff meeting
    - Consisting of: Reason for alert, importance, interaction, intervention
- **Susceptibility Reports**
  - System generated
  - Viewed in timely fashion?
  - Awareness of availability
  - Antibiogram

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# Lessons Learned

- **Barriers**
  - Data collection
    - Many reports
    - Not one report to collect required information
  - De-escalating Antibiotics
    - Expertise
    - Not a "one size fits all" list for broad vs. narrow spectrum
  - Time
    - Compiling reports
    - Antibiotic regimen for treatments for each patient
- **Overcome**
  - Data collection
    - Spreadsheet of required information
    - Create own report
  - De-escalating Antibiotics
    - Spreadsheet of what is being treated with break down of broad vs. narrow spectrum antibiotics with duration
    - $S^3$ App – Simplified Spectrum Score
  - Time
    - Using spreadsheet of required information in real time

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# Project Outcomes

- **Measures of Success**
  - This project is now one of our department's quality plans
  - Decrease in broad spectrum antibiotic use
- **Plans for Sustainment**
  - Quality Plan
    - Reported out to several committees

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# SIDP Program Experience and Feedback

- Self-paced
- Knowledge Checks
- Quizzes
- Discussion Boards
- Office Hours
- Understanding beyond disease states and treatments

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# Improving Compliance with Short-Course Antibiotic Recommendations - An Antimicrobial Stewardship (AMS) Quality Improvement Project

Katie Koehn, PharmD, BCPS
Katherine.Koehn@mercyhealth.com

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## MercyOne Elkader Medical Center

**The Hospital**

11- Bed Critical Access Hospital

Located in Elkader, Iowa population 1,200

**The Providers**

Stable Hospitalist staffing Monday-Friday

Stable Locum-tenens staffing weekends and Paid Time Off (PTO) coverage

**The Pharmacy**

Contracted Pharmacist services through MercyOne Dubuque Medical Center

Onsite coverage Monday, Wednesday, Friday

Remote coverage by Dubuque pharmacists all other times

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# Antimicrobial Stewardship already in place

Pharmacist participation in multi-disciplinary review (MDR) meetings when on site

Renal dosing on all antibiotics, Vancomycin dosing services, review of Culture and Sensitivity (C&S) reports when on site

Monthly AMS education articles to nursing staff

Manual Data tabulation of antimicrobial use

Monthly report to med staff showing Days of Therapy (DOT)/1000 Days At-Risk (DAR) for the month and fiscal year to date (FYTD), describing all AMS activities performed by pharmacy

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# Identifying a project area

Initial plan – Trinity Health Asymptomatic Bacteriuria (ASB) initiative

- System-wide initiative to reduce treatment of ASB
- Planned to implement Trinity's initiative at MercyOne Elkader
- Epic TogetherCare integral to Trinity initiative
- Change Healthcare cyberattack in February 2024 delayed TogetherCare go-live until June 2025

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# Identifying a project area

Plan B – Short course antibiotic recommendations

Topic reviewed in December monthly meeting of Iowa Department of Health and Human Services Critical Access Hospital Antibiotic Stewardship Cohort

Educational session at 2024 Iowa Antimicrobial Stewardship Summit

No formal duration monitoring in place at MercyOne Elkader

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# Putting it together

Goal: Improve compliance with short-course antibiotic best practice recommendations from the beginning of FY25 (7/1/24) to the end of FY25 (6/30/2025)

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# Selection of criteria and threshold

## Criteria

American College of Physicians Best Practice recommendations (select indications only)

Community-Acquired pneumonia: < or = 5 days

Uncomplicated UTI: 3-5 days

Uncomplicated Pyelonephritis: 5-7days FQ or 14days Bactrim

Nonpurulent Cellulitis: 5-6 days

## Threshold

Goal: Improve compliance, meaning only intend to monitor if compliance (yes or no data point) goes up or down.

Baseline compliance of 66.7% established with June 2024 data

Quality goal set for 90% compliance by the end of FY25





# Interventions

**Step 1**

Educate medical staff

- Email educational materials (July)
- Medical Staff Meeting (August)
- Ongoing ad-hoc education at MDR meetings

**Step 2**

Ongoing pharmacist interventions

- MDR meeting participation
- Review all antibiotic orders for duration
- Recommend addition of stop dates whenever possible

# Data collection tool

## A simple spreadsheet

| Data Collection FY25 (July 2024 - June 2025) | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| Target Durations: | CAP | Community acquired pneumonia | | 5 days | |
| | UC | Uncomplicated Cystitis | | 3d Bactrim or FQ, 5d B-lactam or Nitrofurantoin | |
| | UP | Uncomplicated Pyelonephritis | | 5-7d FQ or 14d Bactrim | |
| | NC | Nonpurulent cellulitis | | 5-6d | |
| | | | | | |
| July 2024 | | | | | |
| Patient Number | Diagnosis | Short-course compatible (Y/N) | Days of therapy | Compliant (Y/N) | % Compliant |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| Totals | | 0 | | 0 | #DIV/0! |

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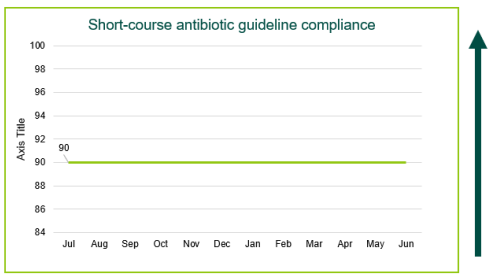
# The FY25 QAPI report

## Following MercyOne Elkader's standardized format

**FY25 QAPI Department Report**

**Department: Pharmacy**

**Quality Indicator(s):** Establish baseline compliance with recommendations for short-course antibiotic therapy in Community-acquired pneumonia, uncomplicated UTI, uncomplicated pyelonephritis, nonpurulent cellulitis and increase compliance to > 90% by the end of FY 25, as determined by monthly audit.




**Quality Improvement Initiatives:**

- July: Baseline compliance from June established at 66.7%. Education emailed to providers with short-course guidelines, focus on CAP, uncomplicated UTI, uncomplicated pyelonephritis, nonpurulent cellulitis. Pharmacist interventions at multidisciplinary review (MDR) meetings initiated.
- August: In-person education with providers at Med Staff meeting. Pharmacist interventions at MDR meetings continue.
- September:
- October:
- November:
- December:
- January:
- February:
- March:
- April:
- May:
- June:

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# My Team

- **Pharmacy and Therapeutics (P&T) Committee**
- **Med Staff**
- **MercyOne Dubuque AMS team**
- **MercyOne Elkader Quality Assurance and Performance Improvement (QAPI) Coordinator**

P&T

- Discussed project and approved its implementation.
- Email from my P&T co-chair utilized in AMS QI project submission to SIDP AMS Certification Course

Med Staff

- Support verbalized at Med staff meetings
- Culture of multi-disciplinary practice receptive to pharmacist intervention

MercyOne Dubuque AMS team

- Committee chair consulted with me for my AMS QI project and served as my Supervisor for submission to SIDP AMS Certification Course

Mercy One Elkader QAPI Coordinator

- Developed QAPI report templates
- Review of QAPI SMART goals as written in QAPI reports





# Overcoming Barriers

## The Challenges

Technology – EMR has rudimentary AMS reporting capability

System – On-site staffing 2-3 days per week limits direct contact with providers

Personal – Initial implementation of project planned with May 8th P&T; May 20th Med staff meeting was delayed due to a family emergency on May 4.

## The Solutions

Technology – Optimize use of patient reporting capability to help identify charts to review, manual tabulation and tracking DOT already in place

System – Ongoing discussion with providers and nursing to keep duration part of team discussions, regardless of pharmacist presence

Personal – Delayed implementation of project until July 1, to coincide with the start of FY25 QAPI cycle

# Moving forward

Next steps will be dependent on FY25 outcome results

Plan to continue pharmacist focus on antibiotic duration at MDR meeting

Include duration in monthly nurse education at least twice a year

Sustainability is an ongoing challenge with MercyOne Elkader's pharmacist staffing model

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# SIDP QI Project: Intravenous (IV) to Oral administration (PO) Conversion

Emily Hummel, PharmD, BCPS

August 2024

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# Cherokee Regional Medical Center

- 25 bed critical access hospital
- Inpatient, ER, surgery, and obstetrics
- Infusion center (including chemotherapy)
- Cherokee Regional Clinics: Cherokee, Aurelia and Marcus
- Fitness Center
- 2 full-time equivalent

(FTE) pharmacist coverage

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# CRMC's Stewardship Committee

- Well rounded team
  - Pharmacy, two physicians, lab, infection control, nursing, IT, administration, quality, ER
- Quarterly meetings
- Great engagement and buy-in
- Goals set annually
- Recently improved our data and tracking

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# SIDP QI Project Overview

- Pharmacist led IV to PO antibiotic conversion program
  - No previous process
  - Area of interest for Antibiotic Stewardship committee
  - Goal: Educate staff and begin making recommendations
- Met with all inpatient providers first
- Pharmacist handout created for quick reference

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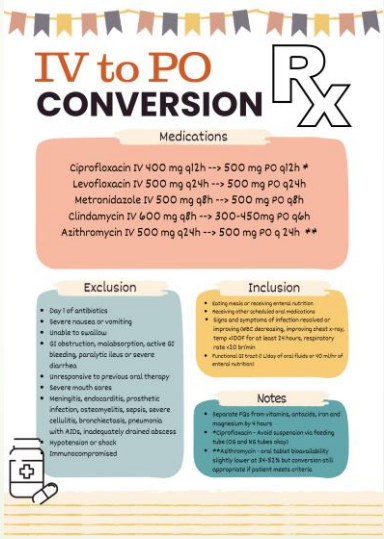
# Pharmacist Tool




Access here (Link)

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# Provider Education

- Articles with information on IV to PO conversion
- Copy of our pharmacist tool
- Explanation of our goal
- Discussion of any of their concerns

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# Barriers

- Time constraints
  - Pharmacists take care of many clinical areas
  - Rounds only Tuesday/Friday
- Provider habits/trust of oral medications
- Lower staff during much of initial implementation
- Insurance coverage concerns
  - IV medications are one of many inpatient qualifications

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# Outcomes

- Very little data at this time – some accepted, some declined
- Often patients were discharging when ready to switch to PO
- Will continue to track pharmacist recommendations as acceptance rate (manual documentation)
- Will look at total doses of all antibiotics (already being collected)
  - Will trend IV and PO total numbers

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# Future Plans

- Our site went live with Bugsy in EPIC in July
- IV to PO recommendations may be suggested for us
- Documentation may change with Bugsy implantation

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# Questions

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# Upcoming Events

+ **How to Leverage Medicare Beneficiary Quality Improvement Program (MBQIP) Data for Improvements: Social Drivers of Health (SDOH) and Health Equity**
  - August 14, 2024, from 1:00-2:00 PM (CT)
  - Free Registration (Link)

+ **SIDP QI Projects Overview: Session 3**
  - August 20, 2024, from 1:00-2:00PM (CT)
  - Free Registration (Link)

+ **Screening for SDOH: Iowa Flex Best Practice Applications**
  - August 21, 2024, from 1:00-2:00PM (CT)
  - Free Registration (Link)

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# iCompass Academy

- This webinar will be recorded and be available on iCompass Academy
- What is iCompass Academy?
  - iCompass Academy offers an online suite of eLearning products including webinars, courses and virtual events that can be accessed anywhere at any time.
- Learn more about the education platform by visiting https://education.ihconline.org/ (Link)
- To create an account, visit: https://education.ihconline.org/user/register?destination=homepage (Link)

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# iCompass

- We encourage you all to also join us on IHC's communicative platform, iCompass.
- iCompass is an online IHC forum designed to share information throughout the entire industry and bring people together to drive sustainable healthcare transformation.
- Create an account today: https://www.ihconline.org/icompass/sign-up (Link)

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# Follow Iowa Healthcare Collaborative on Social Media

- Receive announcements on one or more of Iowa Healthcare Collaborative's social media platforms!
- Compass posts are available on the following platforms:
  - Twitter
    - Follow us: @IowaHealthcare (Link)
  - Facebook:
    - Follow us: @IowaHealthcareCollaborative (Link)
  - LinkedIn:
    - Follow us: @iowa-healthcare-collaborative (Link)

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# Thank You for Participating

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