Antimicrobial Stewardship Since 1969









What is Sanford Guide?

- Concise clinical reference •
- Infectious diseases •
- Started as book in 1969 •
- Books, apps, web site, API •
- #1 on Amazon, Google Play, Apple App Store, etc.
- >25 million aggregate sales
- ~1 million users









Who Uses Sanford Guide?

- Inpatient
- Outpatient •
- Hospitalists
- Specialists
- **General Practitioners**
- Family Medicine Providers



- Physicians •
- Physician Assistants
- Pharmacists
- Nurse Practitioners
- Microbiologists •
- Infection Prevention & Epidemiology







Stewardship Challenges

- Communicating ASP messages to prescribers
- Alert fatigue •
- Localized antibiogram = major time/\$ investment •
- How to get prescribers to use local data
- Antibiogram doesn't tell full story







Stewardship Challenges

The study showed that:

- 72% of residents relied on Sanford Guide for the selection of empiric therapy
- 90% of residents were aware of institutional antibiograms, but only
- 44% know how to access them.

Tallman et al, Infect Control Hosp Epidemiol. 2018 Mar 1:1-6. [Epub ahead of print].





- A recent study investigated antibiotic prescribing decisions among a group of medical residents.

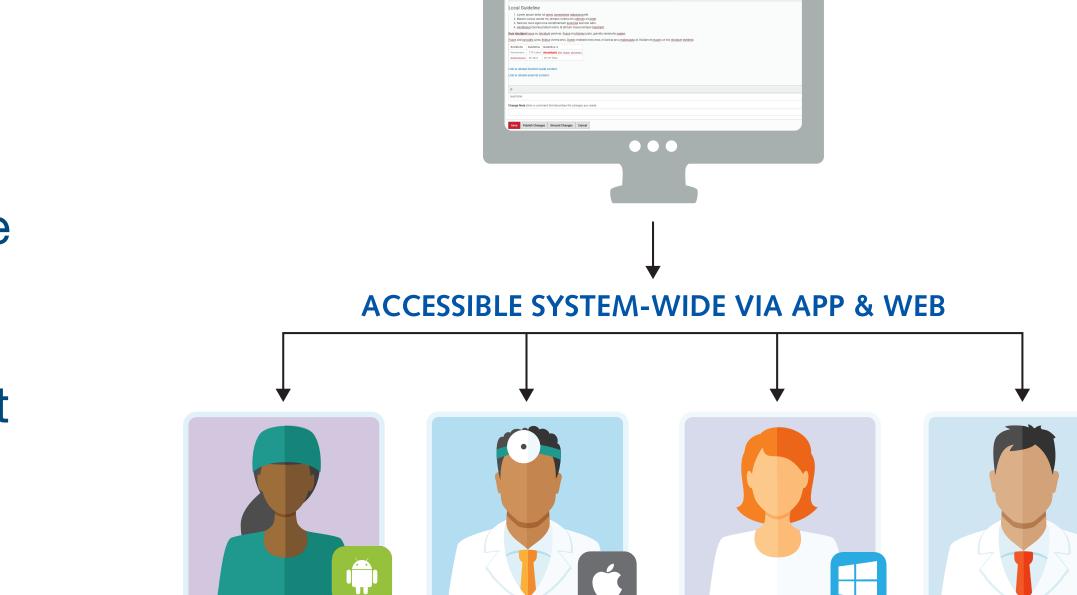




家 SANFORD GUIDE with Stewardship Assist 🝰

- Display local antibiograms w/ notes
- Display multiple antibiograms
- Display stewardship recommendations on any page
- Create site-specific pages and content
- Disseminate stewardship recommendations without the need for in-house development or IT support

Accessible. Concise. Reliable.





SANFORD GUIDE

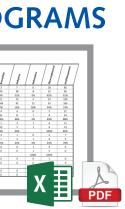
OUR CONTENT

YOUR GUIDELINES

USER-FRIENDLY EDITING PORTAL

YOUR ANTIBIOGRAMS

| | /_ | / | | 1 | // | | 1 | | 1 | 1 |
|------------------|------|-------|-----|------|------|---------|-----|--------|------|-------|
| | / 4 | / - | / 3 | 13 | / 3 | / 4 | / 3 | 1 2 | 11 | |
| E. coli | | 4 | | | 12 | 31 | | 14 | 4 | |
| | 64 | 89 | 40 | 52 | 77 | 69 | 29 | 31 | 41 | 2 |
| | 46N | 4% | 20% | 29% | 16N | 45% | 48% | 45N | 10% | 1 41 |
| Klebslella spp. | 131 | ļ | 1 | | | § | | 17 | 4 | |
| | 156 | 177 | 80 | | 152 | 149 | 159 | 63 | 1 90 | 36 |
| | 79% | 0% | 2% | 13% | 9% | 35% | 22% | 25% | 7% | 21 |
| Enterobacter sp | 37 | 2 | 5 | 5 | 4 | 13 | | 6 | 5 | 1.4 |
| | 20 | 24 | 16 | 12 | 21 | 22 | 21 | 12 | 15 | 1 2 |
| | 45X | 3 856 | 32% | 50% | 19% | \$ \$9% | 28% | \$ 50% | 32% | 16 |
| Citrobacter sp | 8 | 0 | 1 | - 4 | 2 | 5 | 5 | 3 | 1 | 1 |
| | 10 | 13 | 6 | 10 | 10 | 9 | 12 | 2 | 6 | 1 |
| | BOX | C/K | 17% | 40% | 20% | 56% | 42% | SON | 17% | |
| Proteus sp | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 0 | 0 | 3 |
| | 4 | 1 | 4 | 5 | 5 | 4 | 1 5 | 4 | 4 | |
| | 50% | 25% | 30% | 40% | 40% | 75% | 60% | 0% | ON | 43 |
| Salmonella sp | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | | 1. \$ |
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| Shigella sp | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | |
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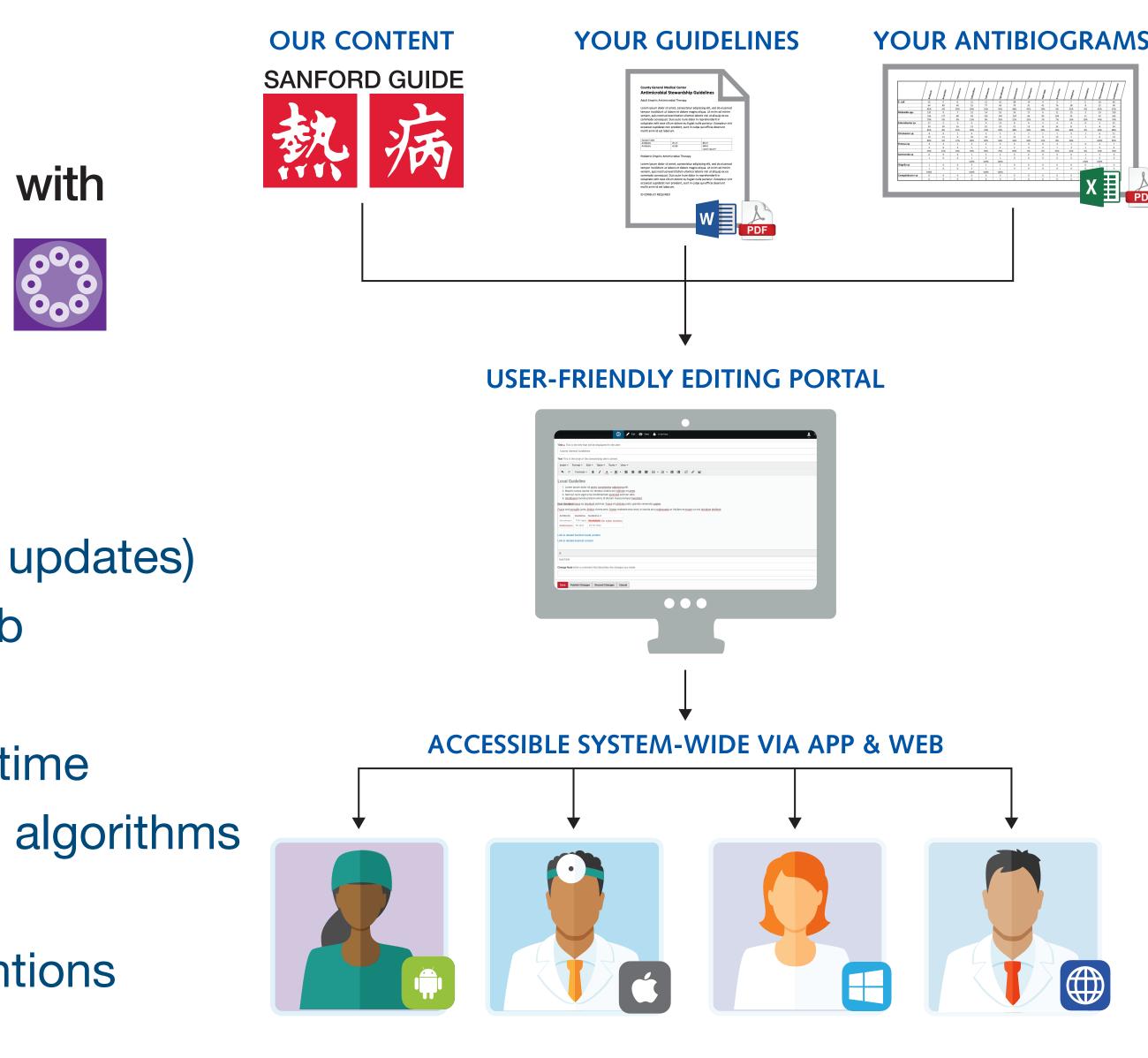




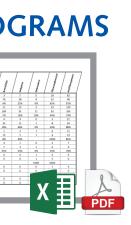
家 SANFORD GUIDE with Stewardship Assist

What's Included:

- System-wide access
- Full suite of Sanford Guide content (w/ updates)
- Access content via iOS, Android, & web
- Transfer of guidelines & antibiograms
- Tools to add or change content at any time
- Support for web pages, PDFs, images, algorithms
- Training for your editorial team
- Access to usage data to target interventions •









家 SANFORD GUIDE with Stewardship Assist 🝰

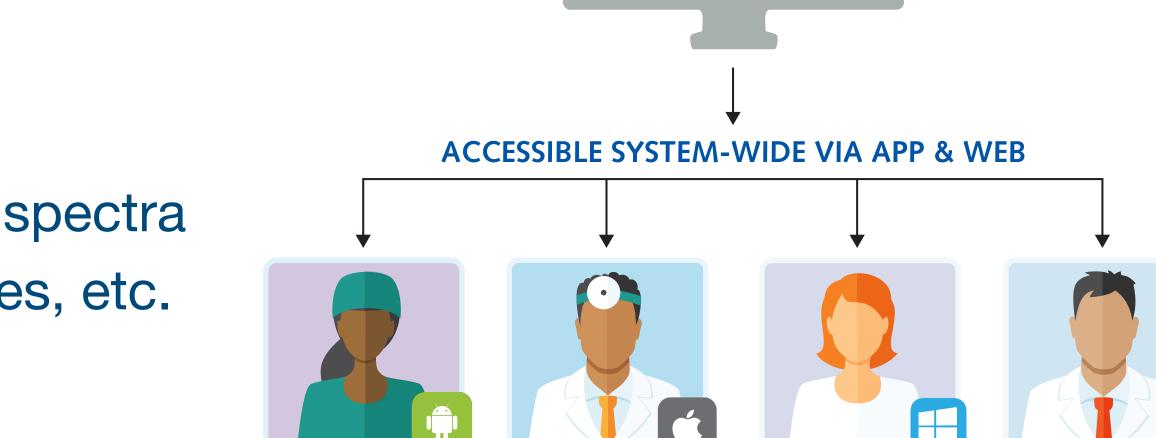
Five core features

- Institutional directory w/ your content
- Your guidelines on Sanford Guide pages •
- Editorial dashboard to track updates •
- Your antibiograms alongside our activity spectra •
- In-app Announcements for drug shortages, etc.



Accessible. Concise. Reliable.





USER-FRIENDLY EDITING PORTAL

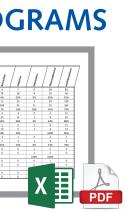




YOUR GUIDELINES

YOUR ANTIBIOGRAMS

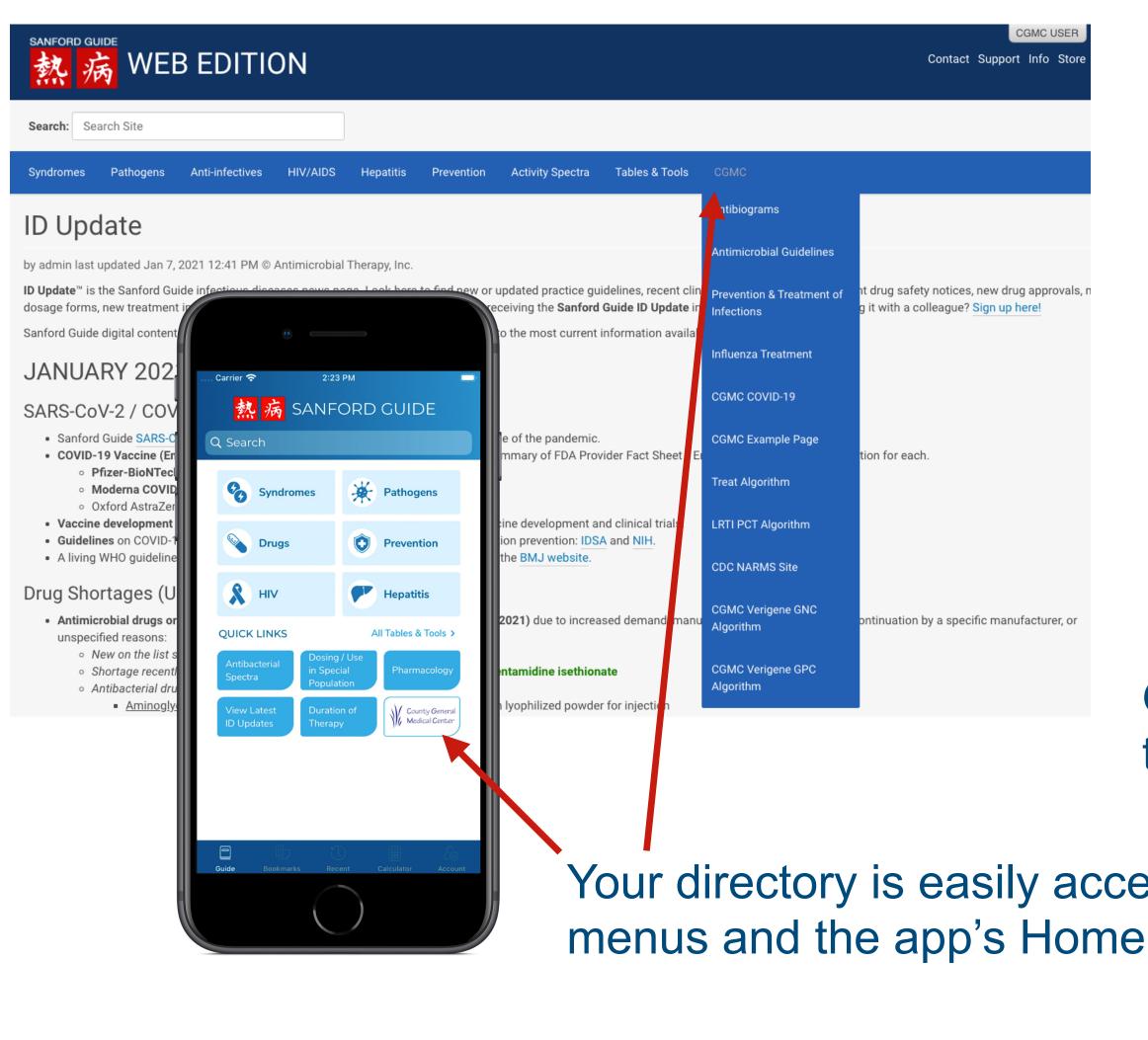
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| E. coli | 55 | 4 | | 15 | 12 | 31 | 38 | 14 | 4 | |
| | 64 | 85 | 40 | 52 | 77 | 69 | 29 | 31 | 41 | 2 |
| | 86% | 4% | 20% | 29% | 16% | 45% | 48% | 45% | 10% | 4 |
| Klebsiella spp. | 131 | 0 | 7 | 12 | 14 | 52 | | 17 | 6 | |
| | 156 | 177 | 80 | | 152 | 149 | 159 | 63 | 90 | 1 |
| | 79% | 0% | 2% | 13% | 3% | 35% | 22% | 25% | 7% | 7 |
| Enterobacter sp | 17 | 2 | 5 | 5 | 4 | 13 | 8 | 6 | 5 | |
| | 20 | 24 | 16 | 12 | 21 | 22 | 21 | 12 | 15 | 2 |
| | 85% | 8% | 32% | 50% | 1996 | \$9% | 38% | SOK | 32% | 16 |
| Citrobacter sp | 8 | 0 | 1 | 4 | 2 | 5 | 5 | 1 | 1 | |
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| | BON | CNK . | 17% | 40% | 20% | 56% | 42% | SOK | 17% | |
| Proteus sp | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 0 | 0 | |
| | 4 | <u>} </u> | 4 | 5 | 5 | 4 | 5 | 4 | 4 | |
| | 50% | 25% | 50% | 40% | 40% | 75% | 60% | 0% | ON. | - 41 |
| Salmanella sp | 9 | | | | 2 | ····· · · · · · · · · · · · · · · · · | 9 | | | |
| | 1 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | |
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| Shigella so | 1 | 0 | 0 | | | 1 | 0 | 0 | 0 | |
| | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | |
| | 100% | | | 100% | 300% | 100% | | | | 1 |
| Campylobacter sp | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | | | | | | | |







Populate your institutional directory with all your guidelines



- Custom directory, accessible from the home page of the web site and the app
- Contains as much content as you want, including
 - Web pages
 - Links to internal or external pages
 - Links to your antibiograms
 - Decision trees/treatment algorithms
 - PDFs for viewing or download
- Content can be organizes into subfolders for topic, content type, facility, etc.

| Our algorithm tool guides clinicians | Are you hungry? Yes No What is your role? Resident Mid-career Supervisory |
|--------------------------------------|--|
| essible from the web's | Have you already had more than one cookie? |







Content is easily edited with our WYSIWYG editor

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- Editors can make changes at any time
- With our user-friendly editor, it's easy to add
 - Text formatting (bold, italic)
 - Text colors & highlighting
 - Headers
 - Bulleted and numbered lists
 - Hyperlinks to Sanford Guide pages
 - Hyperlinks to your pages
 - Hyperlinks to external pages
 - Hyperlinks to create emails
 - Images
 - Tables
- Changes go live in minutes or hours not weeks or months
- Editors can save work for later review or editing

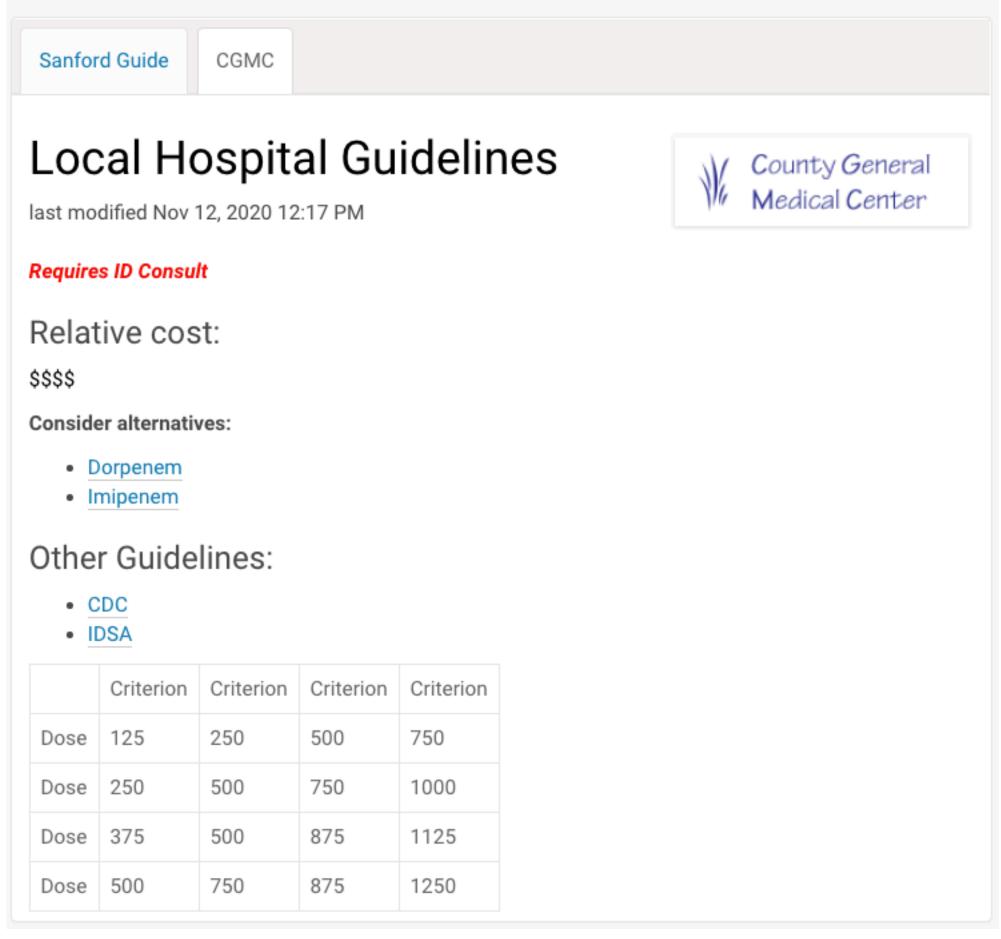




Add your guidelines to any Sanford Guide syndrome, pathogen, or drug page

Meropenem

Meropenem, Merrem





- When users visit any page, your guidelines appear first, so you can highlight information such as formulary restrictions, susceptibility issues, cost data, and more
- Users can tap on the Sanford Guide tab to see full Sanford Guide information on the topic
- Formatting tools allow you to change fonts, add colors, insert tables, link to internal or external pages, and more.
- Your content can be customized and edited without the need for IT intervention using our WYSIWYG editor
- Your edits go live instantly, or can be saved for later review and publication





Keep track of your edits with our Editorial Dashboard

Stewardship Assist Dashboard

Download CSV

| Baseline | | | | | | | Working Copy | |
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| Alert | Mon Health Guidelines - Ciprofloxacin | cgmc-editor-sanfordguide-com | 2021-01-07 09:31 | cgmc-editor-sanfordguide-com | Published Vie | w | N/A | N/A |
| Standalone | Antimicrobial Guidelines | cgmc-editor-sanfordguide-com | 2021-01-07 09:29 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Formulary Restriction - Pneumonia, Communi | cgmc-editor-sanfordguide-com | 2020-12-29 08:09 | cgmc-editor@sanfordguide.com | Published Vie | W | N/A | N/A |
| Alert | Not on KAAMC Formulary - Ceftaroline | cgmc-editor-sanfordguide-com | 2020-12-29 08:06 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | CGMC Stewardship Guidelines - UTI, Acute, U | sgrimley@sanfordguide.com | 2020-12-21 14:23 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Formulary Restriction - Doripenem | cgmc-editor-sanfordguide-com | 2020-12-15 14:22 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Local Guidelines - Amoxicillin | cgmc-editor-sanfordguide-com | 2020-12-15 12:23 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | ASP Alert - Vancomycin | cgmc-editor-sanfordguide-com | 2020-12-01 10:25 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Local Hospital Guidelines - Meropenem | cgmc-editor-sanfordguide-com | 2020-11-12 12:17 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Standalone | Treatment of Influenza 2018-2019 | cgmc-editor-sanfordguide-com | 2020-11-04 12:37 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Formulary Restriction - Azithromycin | cgmc-editor-sanfordguide-com | 2020-09-24 11:30 | cgmc-editor-sanfordguide-com | Published Vie | W | N/A | N/A |
| Alert | ASP Alert - CDC Immunization Schedules | cgmc-editor-sanfordguide-com | 2020-09-03 10:37 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | Formulary Restriction - Cefepime | cgmc-editor-sanfordguide-com | 2020-09-01 13:12 | cgmc-editor-sanfordguide-com | Published Vie | w | N/A | N/A |
| Alert | County General Guidelines - Cefazolin | cgmc-editor-sanfordguide-com | 2020-08-24 10:02 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |
| Alert | ASP Alert - Pseudomonas aeruginosa | cgmc-editor-sanfordguide-com | 2020-08-19 12:23 | cgmc-editor-sanfordguide-com | Published Vie | w | N/A | N/A |
| Standalone | Process for Ordering Antimicrobials at CGMC | cgmc-editor-sanfordguide-com | 2020-08-18 12:41 | cgmc-editor@sanfordguide.com | Published Vie | w | N/A | N/A |



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- Your hospital or health system's AMS editorial team can make edits at any time
- Editors can easily view a comprehensive list of pages and alerts, and organize them by
 - Creator
 - Editor
 - Modification date
 - Draft vs published version
- Dashboard data can be exported in csv format for offline review





Display your antibiograms in our interactive Spectra of Activity

| CGMC Inpatient ~ | P | en | <u>,</u> | E. | | P.C | eph | | A | G | 0 |
|--------------------------|------------|----------|-----------|---------------|-----------|-------------|-------------|----------|------------|------------|-------------------|
| ADD ALL ADD BUG/DRUG | Ampicillin | Pip-Tazo | Meropenem | Ciprofloxacin | Cefazolin | Ceftriaxone | Ceftazidime | Cefepime | Gentamicin | Tobramycir | Clear All Columns |
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| Aerobic gram negative ba | ncilli, | ente | roba | cter | | | | | | | |
| C. freundii | | 79 | 100 | 79 | 85 | 71 | 72 | 100 | 92 | 89 | Х |
| E. aerogenes | | 89 | 100 | 95 | | | | 100 | 100 | 98 | Х |
| E. cloacae complex | | 83 | 100 | 97 | | | | 99 | 97 | 85 | V |
| E. coli (S) | 58 | 9 | 99 | P | 53 | 86 | 63 | 85 | 83 | 42 | Х |
| K. oxytoca | 0 | 84 | 100 | 83 | 25 | 86 | 87 | 100 | 97 | 91 | Х |
| K. pneumoniae | 0 | 88 | 98 | 77 | 69 | 76 | 82 | 87 | 86 | 80 | Х |
| P. mirabilis | 73 | 100 | 100 | 73 | 5 | 92 | 94 | 88 | 89 | 86 | Х |
| Serratia marcescens | | 100 | 98 | 98 | | 100 | 100 | 100 | 100 | 100 | Х |
| Aerobic gram negative ba | ncilli, | | | | | | | | | | |
| A. baumanii cmplx | | 94 | 100 | 100 | | 53 | 94 | 88 | 100 | 100 | Х |
| P. aeruginosa | | 75 | 79 | 74 | | 49 | 86 | 86 | | 95 | Х |
| Clear All Rows | Х | Х | Х | Х | Х | Х | Х | Х | Х | Х | х |

- Display only the drugs and pathogens you choose
- Unlimited number of data sets, so each ward, facility, or year can have its own view
- Color coded to highlight treatments of greatest susceptibility

| SG | | Active |
|--------------------------|--------------------|--------------------|
| CGMC IPT | | 99 |
| Isolates | | 367 |
| | inpatient location | s from all culture |
| CGMC OPT | | 95 |
| solates | | 36 |
| 2017 Adult - All | | no data |
| | | no data |
| NARMS 2018 | | |
| NARMS 2018 NARMS 2019 | | no data |

- Tap on any interaction for detailed information including
 - Isolates used
 - Notes pertaining to the interaction
 - Sanford Guide recommendation
 - Susceptibility from other data sets
 - Links to drug and pathogen information







Alert Your Providers with In-App Announcements

- Notify providers of drug shortages, guideline changes, etc.
- Create announcements with a user-friendly editor
- Schedule for later or publish instantly
- Sent to users in real time
- Retained in the app for later reference
- Can revoke from all users at any time

| Edit Meta Logs (2) | 12:57 就高 SANFORD GUIDE Q Search |
|---|--|
| Announcement Title: (up to 200 characters long) Drug Shortage Alert | Syndromes Pathogens |
| Announcement Content: | Drug Shortage Alert Doxycycline Oral Suspension in short supply (More information) |
| | Available Products Doxycycline monohydrate oral powder for suspension, Lupin, 25 mg/5 mL, 60 mL bottle, NDC 68180-0657-01. Estimated Resupply Date |
| P » STRONG Send Announcement To: That is using a license for: County General Medical Center -Any Product | COVID-19 |
| Update Announcement Reset Cancel | Guide Bookmarks Recent Calculator Account |







What are the benefits?

- Save time
- Save money
- Promote antimicrobial stewardship
- Reduce medical errors
- Improve patient outcomes
- Cut down on readmissions

















Is there evidence this will help?

A recent study demonstrated how Sanford Guide with Stewardship Assist improved antimicrobial stewardship knowledge and performance among medical residents and interns.

The study showed that:

- 95% of participants preferred the app to a paper guide
- 88% reported that it was easy to use the app
- 68% reported that the app directly improved their knowledge of local resistance patterns
- Weekly training sessions that incorporated the app resulted in antibiogram usage increasing from 34% to 90%

Brooke et al.. IDWeek 2021 session 86 - Making the APPropriate Choice: Utilization of a Smartphone Application to **Optimize Antimicrobial Decisions Among Internal Medicine Trainees**







What are other benefits?

Sanford Guide with Stewardship Assist can help you meet **CDC Core Elements** for Hospital Antibiotic Stewardship Programs, CMS Conditions for Participation, and Joint Commission requirements, and adhere to **IDSA and SHEA Recommendations**:

- Demonstrates prioritization of antimicrobial stewardship through support of its ASP (influencing financial and IT resources to support AMS).
- Demonstrates usage of and adherence to nationally recognized guidelines and best practices for antimicrobial stewardship.
- Makes it easy to document evidence-based use of antibiotics.
- Makes it easy to develop and approve, and document protocols using the Editorial Dashboard and version control.
- Assists with implementation of guidelines for CAP, UTI, SSTI, and avoidance of inappropriate urine testing for patients w/o UTI symptoms.
- Incorporates computerized clinical decision support at the time of prescribing. • Disseminates guidelines in an electronic format.







Why Sanford Guide?

- 50+ years of leadership & trust •
- Geographically diverse editorial board •
- Fastest time-to-answer
- Top-rated mobile apps
- Family-owned small business
- Responsive and dynamic
- You're already using it!



SANFORD GUIDE

Antimicrobial Stewardship Since 1969





More information

www.sanfordguide.com/stewardship-assist

stewardship@sanfordguide.com







Antimicrobial Stewardship Since 1969





