

Managing Antibiotics in Nursing Homes in the Age of COVID-19



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Even amid a historic viral pandemic, the World Health Organization (WHO) identified antibiotic resistance this past July as one of the “biggest threats” to global health. Resistance is on the rise due to the lack of new antibiotics under development, and with new infections and superbugs also increasing in prevalence, antimicrobial resistance is a major obstacle to infection prevention.

Fortunately, new data-driven technology tools can give SNF operators increased insight into what is happening in their facilities with regards to infection control – and they can use that information to change course and improve outcomes.

This white paper lays out the challenges of antibiotic resistance, and shows how operators are engaging in antibiotic stewardship for better resident outcomes.



Infection Control

BY THE NUMBERS

Skilled nursing facilities have historically struggled with proper infection control. From August 2019 to January 2020, there were 282 citations of SNFs' failure to treat superbugs; in the first quarter of 2020 alone, there were 101 such citations.

A global problem

Antibiotic resistance is on the rise

The WHO in July laid out the stakes in a stark warning: Not only does antibiotic resistance threaten the health of individuals and communities, but it can lead to mounting costs and strain on health care infrastructure.

The phenomenon is an example of evolution over a significantly condensed timeframe: As modern antibiotics helped to kill off bacteria that cause any number of human illnesses, those bacteria then mutated to resist the drugs, replicate and survive.

In the past, physicians would freely prescribe antibiotics in outpatient settings without a second thought. Cheap, safe and effective against their intended targets, the drugs had little known downside for patients with suspected bacterial infections.

But over the last decade, while physicians in the outpatient setting have drastically cut back on antibiotic prescriptions in an attempt to stem the deadly tide of resistance.

"Now, if you go to the doctor, they'll say: 'How long have you had this symptom? What have you tried?'" says Nicki Fetterman, product leader at PointClickCare. "Often you leave the appointment with instructions to come back in a week if you're still not better. Then they will give you an antibiotic."

Unfortunately in a post-acute setting, this is all easier said than done.



5 Top Strategies for Combating Antibiotic Resistance

According to the World Health Organization (WHO), a number of common infections are becoming harder to treat due to antibiotic resistance, including pneumonia, tuberculosis, gonorrhoea and salmonellosis.

Here are the WHO's top strategies health care professionals can use to combat antibiotic resistance:

- Enforcing proper sanitation of hands, instruments and the environment
- Declining to prescribe antibiotics if the situation does not meet the proper guidelines
- Notifying public health officials of antibiotic resistant infections as they occur
- Explaining the importance of proper antibiotic use to patients
- Educating patients about simple infection-control practices, such as vaccinations and hand-washing



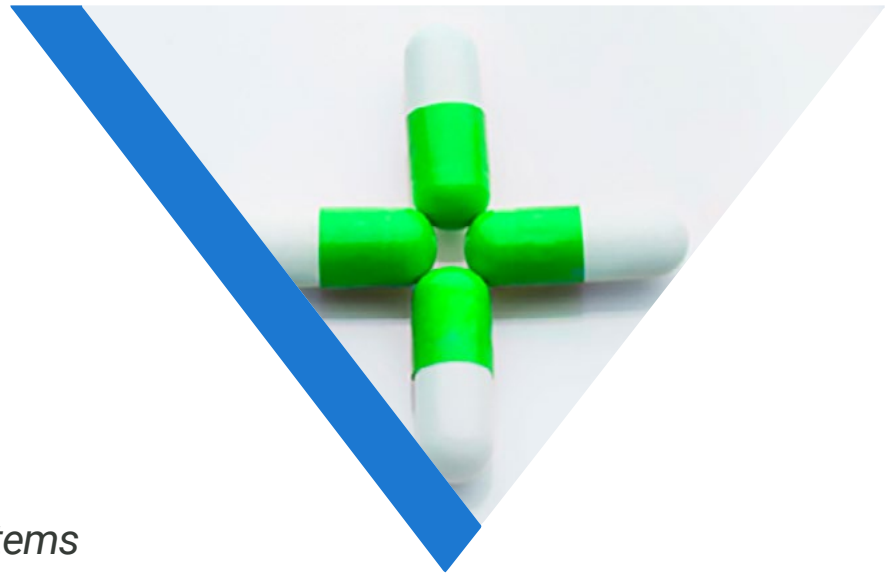
Antibiotics and skilled nursing facilities

Why SNFs need automated systems for antibiotic management

Delaying or avoiding antibiotic use may work for younger, healthier people visiting the doctor when they feel sick. But in a SNF, where the residents may not be able to describe their symptoms in detail and doctors aren't always available to perform around-the-clock in-person interventions, the temptation to simply prescribe an antibiotic for a suspected bacterial infection remains strong – even if it's not the best solution.

“What has long happened is that at the first sign of anything, the nurse calls the doctor, the doctor immediately puts [the patient] on an antibiotic, and they hope that at that point, they've circumvented a readmission or a bad outcome and the patient status will begin to improve,” Fetterman says.

On top of those challenges, frontline caregivers must often deal with a lack of knowledge on antibiotic resistance from resident families, who are rightfully concerned first and foremost about their loved one's wellbeing – and perhaps can't see the bigger picture.



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“You have pressures from families to start antibiotics – and the challenge of educating the public as to appropriate antibiotic use,” says Vicki Nordby, nurse consultant at senior living and care operator Marquis Companies.

These well-meaning strategies become a major problem when compounded over the course of decades among millions of nursing home residents at the more than 15,000 facilities nationwide.

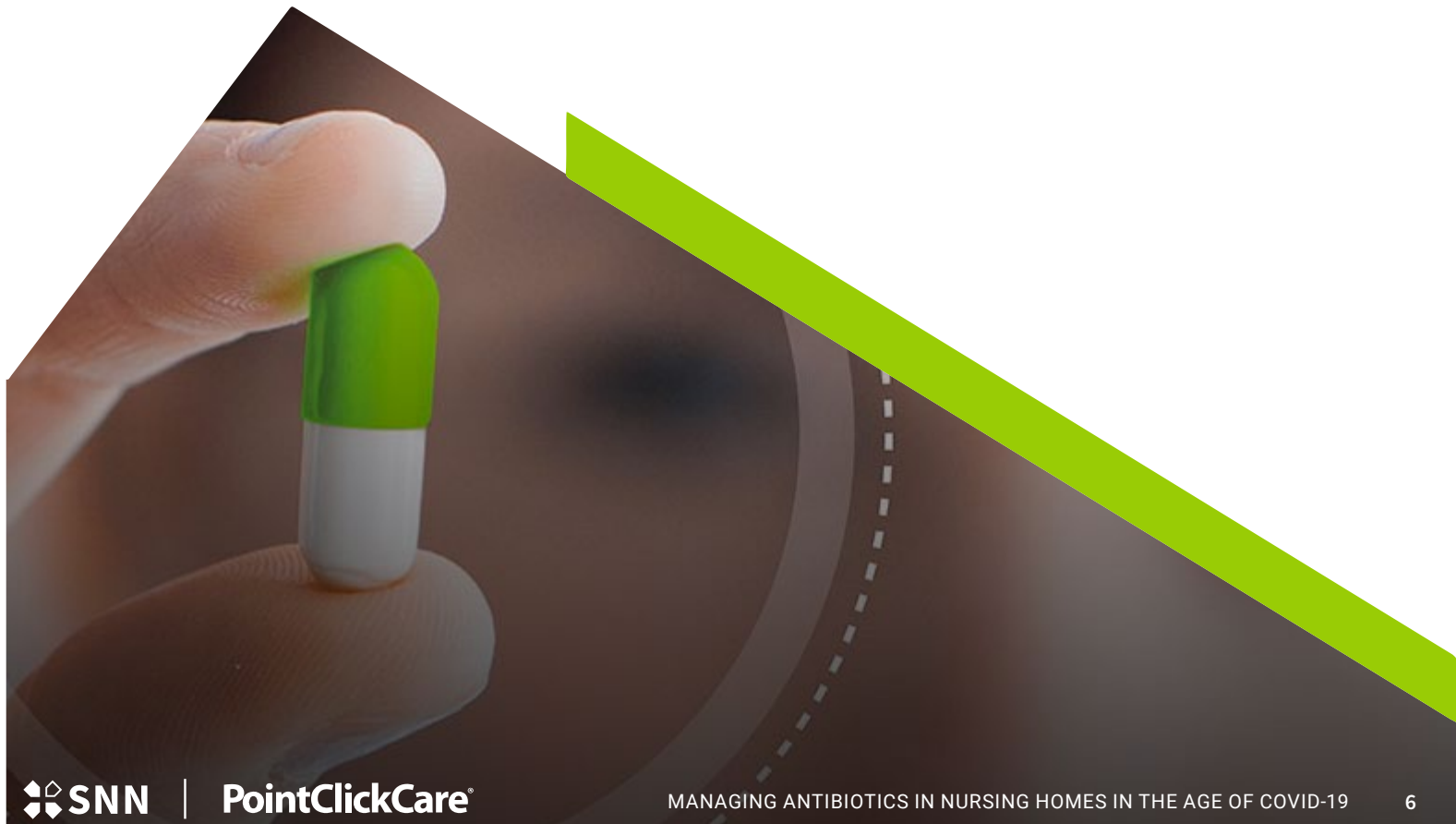
Antibiotics and skilled nursing facilities (continued)

Infections are already major health risks for the frail and elderly populations in long-term care facilities, and can lead to several unwanted outcomes due to misuse of antibiotics, such as:

- Infections become tougher to treat
- Readmissions and mortality risk increase
- Quality ratings decline, jeopardizing a SNF's place in referral networks
- Drug costs increase as doctors are forced to prescribe an ever-growing cocktail of medications in an attempt to fight off the resistant bacteria

Even if a facility has the resources to pay for a more expensive, less common antibiotic drug, there may not be one available that will work in all cases.

“They’re not making new antibiotics. That’s the challenge. They’re making new drugs for cancer and other diseases, but nobody’s releasing new antibiotics,” Fetterman says. “It’s currently not the focus, which means we’re working with the same tools we had so many years ago, and hoping that they’re still going to be effective for us, knowing that bacteria and infections just keep mutating.”





The COVID Effect

How proper antibiotic management can help SNFs

As a viral infection, COVID-19 doesn't directly play into a facility's antibiotic stewardship program. But as nursing homes around the country settle into managing COVID-19 until a vaccine hits the market, proper antibiotic management can help operators in three keys ways:

- Keep care quality high
- Save vital supplies and dollars needed for the COVID-19 fight
- Set themselves up for a stronger post-pandemic future

Federal citations related to infection prevention and antibiotic management were creeping up even before COVID-19, and as operators scramble to meet the ever-shifting pandemic mandates around testing, cohorting and personal protective equipment (PPE) use, they cannot forget the basic blocking and tackling of curbing infections and using antibiotics appropriately.

"For a while, it felt like every day a regulation or a rule of engagement around COVID has changed," Fetterman says. "But at the core, [SNFs] are still battling the same challenges they had before COVID. Add in the unique challenges COVID presents, and they have their hands full. We as an industry need to find new, innovative ways to support them.

CMS has cracked down on infection control problems with sweeping new fines that can rise to up to \$20,000 per instance. The added expenses of PPE, testing supplies, and staffing bonuses will be on an operator's books even after a vaccine becomes widely available. And all the while, residents without COVID continue to have the same profound health issues that have necessitated nursing home care for decades.



The COVID Effect (continued)

If operators can be successful in their antibiotic stewardship strategies, they can curb infections at the start, saving precious resources for the COVID-19 patients which do not have any effective treatments other than mitigation strategies. SNFs can save money on drug costs and use those savings to continue supporting frontline caregivers and coronavirus prevention efforts.

In effect, they can ensure that all of their added expenses and efforts will laser-target COVID-19.

“Customers are going to be coming out on the other side of COVID trying to recoup financially,” Fetterman says. “Antibiotic stewardship, and being good stewards of supplies, is a way they can make some small impacts that will last for a while.”

Tech to the rescue

The power of infection prevention and control solutions

As with so many areas of health care, the right technology can help streamline a facility’s antibiotic stewardship plan. Getting it right takes many players, Fetterman says – physicians, nurses, pharmacy consultants, infection preventionists and certified nursing assistants all need to communicate in order to make sure that residents get the right drugs to treat their issues, and that they’re not getting medications they don’t need.

Nursing homes have historically lagged behind other care settings with tech adoption. In many cases, the policies and procedures for using antibiotics appropriately live in a dusty binder.



Tech to the rescue (continued)

Facilities track the interactions between the vital players with spreadsheets, a time-consuming method that also doesn't allow real-time integration of infection control and antibiotic stewardship practices in staffers' day-to-day workflows – another key strategy for success.

"If it's an added extra step or a thought in the process, they're not going to do it," Fetterman says. "You have to integrate this into their day-to-day workflow so it's expected of them. Not 'Oops, I didn't do my antibiotic stewardship.' It's not a separate task. It should be ingrained in their daily practice."

Users of PointClickCare's Infection Prevention and Control (IPC) solution report significant time savings for frontline staffers, Fetterman says – and with time an increasingly scarce resource for an overburdened workforce, every second counts. The software also provides everyone on the care team instant access to information about resident status and the infection status, eliminating guesswork and empowering staff to make the best and safest decisions without automatically defaulting to prescribing costly medications or traumatic hospital readmissions.



McGeer-Loeb: A Blueprint for Infection Prevention

A pair of academic frameworks – from McGeer and Loeb – can help guide the decision whether to prescribe or hold off.

- **McGeer criteria:** A checklist of various symptoms, including fever and mental status, that clinicians can use to guide staffs toward better antibiotic prescription decisions
- **Loeb criteria:** A similar set of criteria that also encourages additional diagnostic testing (urine cultures, chest X-rays) to confirm bacterial infection prior to prescribing an antibiotic

Tech to the rescue (continued)

At Marquis, using the IPC module from PointClickCare meant replacing an outdated process that relied on Microsoft Excel, adding the burden of manual data reporting and preventing staffers from seeing real-time updates to each resident's unique pharmacy needs. Now, everyone on the team has the information they need as soon as it changes.

"The ability to have additional levels of oversight is extremely beneficial," Nordby says.

IPC has also streamlined the crucial assessment process, in which clinicians determine if a particular case merits the use of an antibiotic. Though it sounds simple, having an automated series of questions and answers can eliminate the subjectivity that often makes the decision to prescribe – or not – needlessly difficult.

"[Technology will] bring more attention to those criteria," Nordby says. "That's one of the areas in antibiotic stewardship that we as an industry really need to focus on: Are we treating infections that don't meet criteria for antibiotic use?"

Creating an antibiotic stewardship program that works

Whether it's measured in better resident outcomes, savings on drug costs or just the ability to free frontline caregivers to perform tasks other than manually updating spreadsheets, a small tech investment can go a long way toward improving antibiotic stewardship in a facility – and, ultimately, setting up a facility for post-COVID recovery.

To learn more about how to guide best practices at the bedside, [visit PointClickCare.com](https://www.pointclickcare.com).

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