



Reducing Infectious Diseases (ID) Patient  
Average Length of Stay Through ID Telemedicine  
in Short-Term Acute Care Hospitals

# White Paper



Infectious  
Disease  
Connect



SANDOVAL REGIONAL  
MEDICAL CENTER



# Abstract

This white paper explores the infectious diseases (ID) challenges faced by the University of New Mexico Sandoval Regional Medical Center (UNM SRMC) and the transformative impact of partnering with Infectious Disease Connect through telemedicine. This case study illustrates the positive impact of telemedicine in addressing disparities in ID care, focusing on a reduction in ID patient consult average length of stay (ALOS). In addition to the proven reduction in ALOS through partnering with ID Connect, UNM SRMC has benefitted from increased access to subspecialty expertise, especially for bone and joint infections, a common patient concern due to the hospital's large orthopedic practice, which draws patients from a wide geographic area.

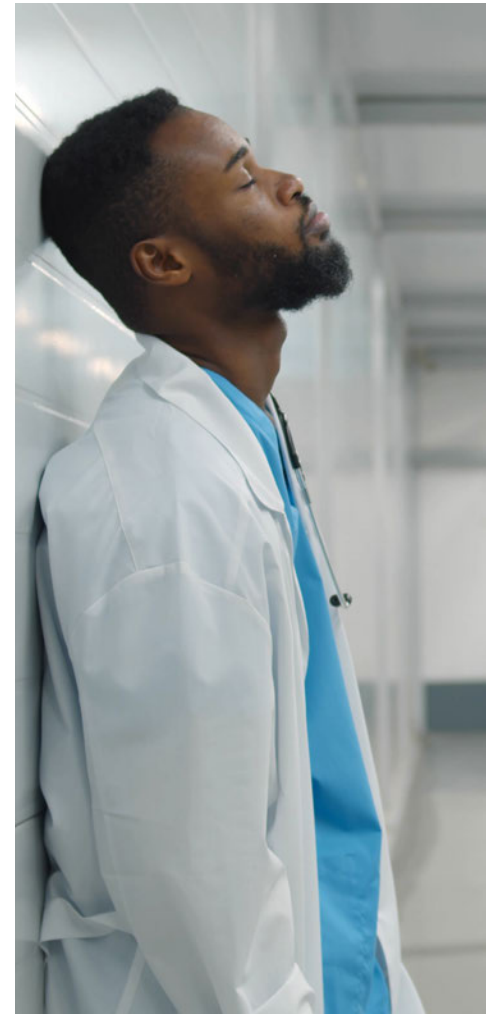
## Problem

208 million U.S. citizens live in counties with no or below-average ID physician coverage.<sup>1</sup> In the face of ID physician shortages throughout the U.S., it is becoming increasingly difficult for hospitals to recruit and retain top talent to meet their ID patient needs.

**In 2023, only 56% of ID fellowship programs and 74% of ID fellowship positions were filled on Match Day. In comparison, 70% of ID programs and 82% of positions were filled in 2022.<sup>2</sup>**

This data raises concerns that it will be very unlikely that ID physicians in training will meet the demand across the nation after graduation in years to come.

Like many hospitals and healthcare systems throughout the U.S., UNM SRMC continually seeks to improve patient quality of care while improving cost-savings.



# Prior to partnering with ID Connect, UNM SRMC's top concerns related to ID patient care included:



## Average Length of Stay (LOS) for ID Patients

- With its prominent orthopedics practice and a steady intake of ID patients, it was imperative for UNM SRMC to decrease LOS to improve access to care and increase efficiency.



## Access to ID Subspecialty Expertise

- With the high influx of orthopedic patients, hospital leadership aimed to improve quality of care through access to bone and joint infection expertise as well as access to 24/7 availability of ID coverage.



## Timely Antibiotic Use and Recommendations

- In both the inpatient and outpatient setting, IV to PO antibiotic conversion to best support its patient population was a priority for hospital leadership. Optimized, timely antimicrobial utilization to improve ID-related outcomes was also a priority.



## Cost-Savings

- UNM SRMC aimed to reduce costs associated with the increased LOS and expand IV to PO antibiotic conversion rates.



## Post-Discharge Transition of Care

- UNM SRMC was seeing suboptimal outpatient care, with patients often not returning for follow-up care, resulting in increasing infections and readmissions.

# Background

The fastest growing county in New Mexico, Sandoval County spans 3,714 total square miles, with a population of over 153,000.<sup>3</sup> The diverse population includes all or portions of 12 Indian Pueblos and Tribal Nations.<sup>4</sup>

UNM SRMC is an urban, non-profit, short term acute care hospital located in Rio Rancho, New Mexico, a suburb located roughly 30 miles outside of Albuquerque's city center.<sup>5</sup> UNM SRMC operates as a part of University of New Mexico Hospital, New Mexico's only academic health center located in Albuquerque.



The medical staff of over 650 professionals is a mix of local providers working exclusively at SRMC and visiting specialists from UNM Hospital in Albuquerque.<sup>6</sup> The emergency room, hospital, and clinics cover 240,000 square feet, including 60 hospital beds, a 20-bed emergency department, and 12 imaging suites including MRI, CT, and mammography. Prior to working with ID Connect, UNM SRMC was one of the sites contracted with a private in-person ID practice for ID patient consults.

UNM SRMC offers physician clinics with over 24 medical specialties and is a Center of Excellence for Orthopedic Surgery and Rehabilitation.

## UNM SRMC 2022 annual statistics<sup>6</sup>:

**\$102.5M** annual operating revenue

**\$40M** in payroll

**42,557** outpatient clinic visits

**21,520** emergency department visits

**3,152** hospital visits

**3,277** surgeries



## UNM SRMC Patient Origination by Medicare only

Zip Code	City	% of Total
87144	Rio Rancho, NM	23.8%
87124	Rio Rancho, NM	17.2%
87004	Bernalillo, NM	8.1%
87013	Cuba, NM	7.4%
87114	Albuquerque, NM	7.0%



With Sandoval County's large population of native people residing in Pueblos and Tribal Nations, UNM SRMC is presented with unique challenges when it comes to patient care. The American Indian and Alaska Native people have long experienced lower health status when compared with other Americans, including lower life expectancy (5.5 years less than the U.S. all races population) and disproportionate disease burden.<sup>7</sup> Indian Health Service ([www.ihs.gov](http://www.ihs.gov)), speculates that these burdens exist possibly due to inadequate education, disproportionate poverty, discrimination in the delivery of health services, and cultural differences.

In working with American Indian and Alaska Native patients, all care is coordinated through the Indian Health Service. The physicians and pharmacists work closely with the Indian Health Service to coordinate patient care, order labs, and provide tele-outpatient parenteral antimicrobial therapy (tele-OPAT) to patients who need it.

Within UNM SRMC lies a dedicated Native American Affairs program, which is focused on providing healthcare for Native American patients.

**"So often health systems look at native people as data points and don't realize the expanded awareness native leaders have to the health system. It's critical to anticipate needs like primary care and behavioral health and shape the programs to meet these needs."**

**– Erik Lujan, UNM SRMC Board Member<sup>6</sup>**

*From the 2022 SRMC Annual Report, Erik Lujan, SRMC Advisory Board Member discussing the role that Tribal and Pueblo community leaders may serve in providing guidance to SRMC.*

# Infectious Disease Connect's Care Model



Infectious  
Disease  
Connect

ID Connect is a medical practice of 40+ board-certified, academic physicians who manage the full spectrum of ID care from initial consult and daily rounding to discharge and outpatient management through a robust telehealth platform. Using audio-video visits, asynchronous management and monitoring, and a telephonic support system, ID Connect's physicians can personalize care for each ID patient that is evaluated, just as if they were in person.

ID Connect's flexible tele-ID model allows hospitals and healthcare systems to adapt their level of ID care. ID Connect's telemedicine offerings include:

- ✓ Telephonic physician-to-physician consults
- ✓ Asynchronous e-consults
- ✓ Live audio-video patient consults

After a series of extensive trainings for onsite physicians, hospital leadership, and nurse tele-presenters, ID Connect's services officially went live at UNM SRMC on March 14, 2023.

As part of this structure, ID Connect operates outpatient clinic hours and inpatient visits, and uses an internal-facing messaging app to provide updates and consult with onsite physicians in real-time. ID Connect's physicians and pharmacists also communicate with attending hospitalists via telephone, as well as through detailed and descriptive notes within the hospital's electronic medical records (EMR).



ID Connect also implemented a tele-outpatient parenteral antimicrobial therapy program (tele-OPAT), which is a comprehensive outpatient program ensuring a safe transition of care and allowing proactive monitoring of patients. This program has made a significant impact on the quality of orthopedic ID patient care.

Prior to ID Connect, patients often had to travel 3+ hours for frequent follow up visits, typically twice a week for half-day sessions, resulting in financial and time burdens on the patient seeking follow-up care. With tele-OPAT, patients are proactively monitored with weekly labs and follow ups as needed – greatly alleviating the burdens associated with unnecessary travel for their ID care.



## Taking a Personal Approach to Telemedicine

Despite ID Connect's infectious diseases specialists living in a different state and never setting foot on the hospital's campus, through the ID Connect collaborative model, the team has developed a robust rapport with other clinicians within the hospital.

"UNM SRMC's nurse tele-presenter, Christa, and our team have developed a great relationship working together to see patients. While rounding, we are available in real time to discuss patient care needs with onsite providers or simply say hello to onsite staff as if they were there in person.

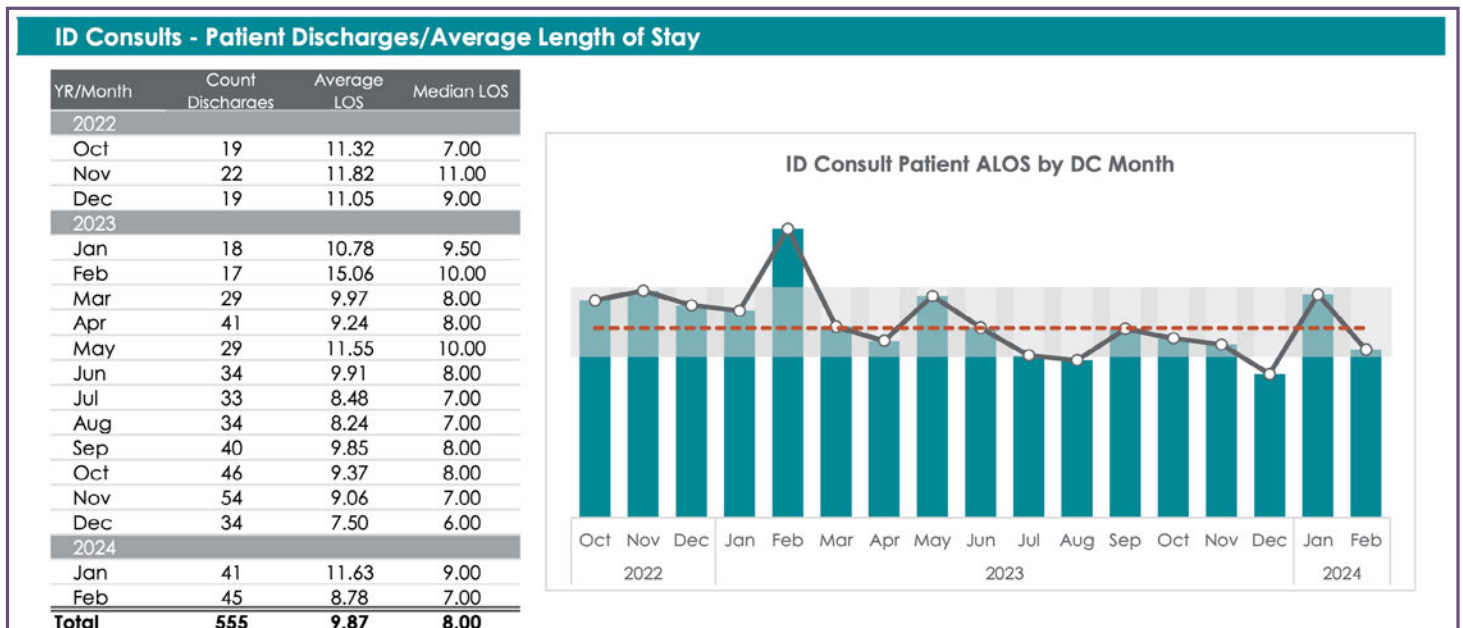
It really helps break down some of the barriers of telemedicine, and it feels like I am right there in the hospital, embedded within the team."

- ID Connect Physician



# Results and Outcomes

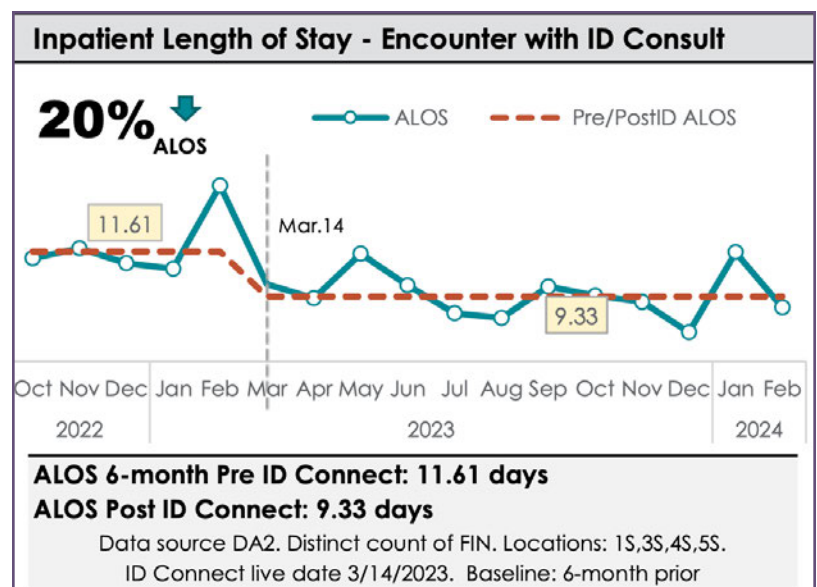
Since introducing tele-ID services in March 2023, ID Connect has achieved a 20% reduction in average length of stay (ALOS) from baseline. Six months pre-ID Connect, the inpatient length of stay where the patient had an encounter with ID consult stood at 11.61 days. The ALOS is now at 9.33 days post-ID Connect.<sup>8\*</sup>



## Reducing Costs & Improving Care with Decreased ALOS

The average cost per day for inpatient care at non-profit hospitals in New Mexico stands at \$3,829.<sup>9</sup> With the 20% reduction in ALOS, UNM SRMC has an estimated annual cost-savings of \$855,753 with its current ID Consult caseload.

UNM SRMC's clinicians also benefit from additional learning opportunities, such as 24/7/365 ID physician access, detailed EMR notes, and a monthly antimicrobial stewardship newsletter written by ID Connect's Director of Infectious Diseases Pharmacy Services.





# Conclusion

The partnership between UNM SRMC and ID Connect through tele-ID has proven to be transformative in addressing ID challenges and bringing expert care – including subspecialty care – to a hospital that serves a unique patient population. Most importantly, ID Connect has improved ID patient outcomes

Telemedicine has grown in the United States since the beginning of the COVID-19 pandemic and will likely continue to grow and become increasingly accepted by hospitals, health systems, physicians, and patients.<sup>10</sup> With comprehensive, academic level tele-ID models, hospitals and health systems can now ensure a reliable, high-quality access to ID expertise – both in the inpatient and outpatient settings – that patients may not have otherwise had access to.

While breaking down barriers and improving health equity, ID Connect's academic, tele-ID service has been proven to be a win-win solution for both patients and providers. The hospitals and health systems benefit from readily available access to care, integrated and multidisciplinary clinical workflows, increased operational efficiency, as well as reduced ALOS and readmissions rates. Most importantly, patients benefit from improved access to high quality of care, subspecialty expertise, and an overall enhanced patient experience while staying in the local communities

As the pool of qualified ID clinicians continues to shrink, hospitals should take a proactive approach to supplementing their existing ID patient coverage needs with tele-ID services. The success of the tele-ID approach at UNM SRMC underscores the potential for transformative impact, improved patient outcomes, and cost-savings in short-term acute care hospitals facing similar challenges.



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\*as of February 2024.