

BIOMÉRIEUX

LUMED™ APSS™ Solution

Clinical decision support system (CDSS) to improve the process of antimicrobial prescription



PIONEERING DIAGNOSTICS

EMPOWER YOUR ANTIMICROBIAL STEWARDSHIP PROGRAM

PATIENTS NEED
THE RIGHT **DRUG**.
THE RIGHT **DOSE**.
AT THE RIGHT **TIME**.

Overuse and misuse of antimicrobials is harmful to individual patients and has led to a rise of drug-resistant organisms – greatly depleting our antimicrobial arsenal. Antimicrobial Stewardship (AMS) Programs are essential for **optimized patient care** today and to maintain antimicrobial efficacy for future generations.

AMS promotes **evidence-based treatment decisions** from initiation to optimization to discontinuation. Yet managing the information needed to make these decisions wisely is complex.



Real-time patient data collection

From the hospital information system to validate the various parameters of optimal antimicrobial prescribing



Identifies non-optimal prescription

Improve the process of prescription with a real-time alert based on local practice context

Signals deviation from best practice guidelines



Prioritizes patient review order



Patient timeline visualization

Holistic view of patient information to help decision



Comprehensive antibiograms

Allows infectious diseases and clinical microbiology experts to filter results to better match the patient in need



Reporting clinical effectiveness and cost reduction

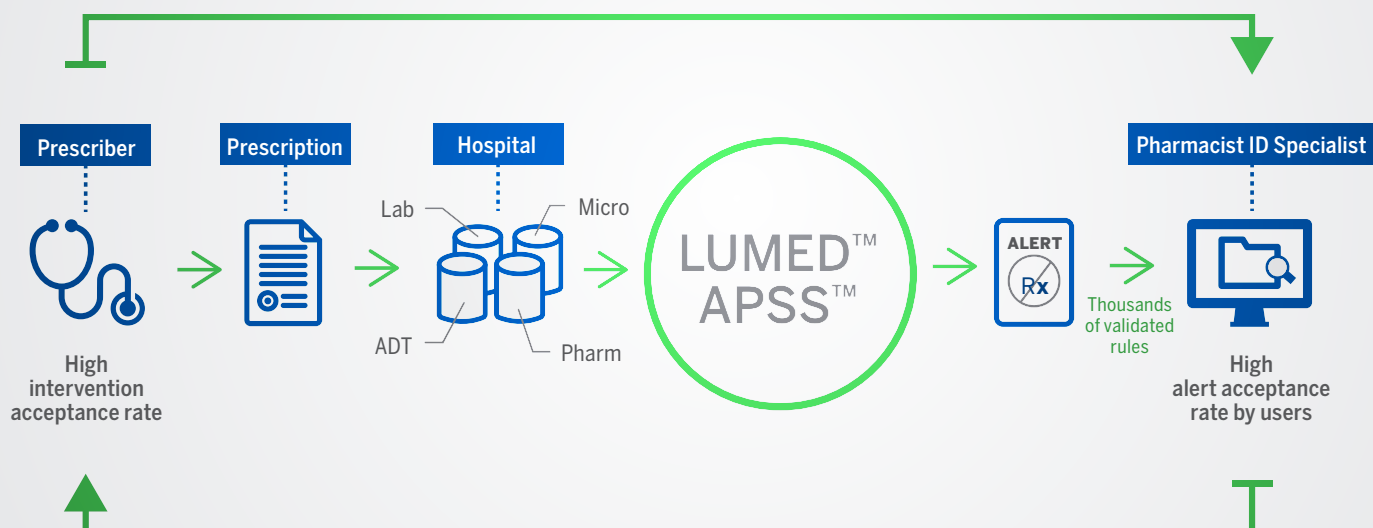


LUMED™ performed a Multi evaluation process to propose the right treatment adjustment at the right time.



(1) Intravenous
(2) Oral Administration

TRANSPARENT INTEGRATION INTO YOUR CURRENT WORKFLOW



GAIN CONFIDENCE WITH APSS™-SUPPORTED INTERVENTIONS

The APSS™ expert system software's algorithms identify a wide range of intervention recommendations such as dosing adjustment, switch from intravenous to oral therapy, and discontinuation of treatment. At the Centre Hospitalier Universitaire de Sherbrooke (CHUS), where it has been in use since 2010, more than 91% of APSS™-supported intervention recommendations are accepted by prescribing clinicians.*

"Using this software enables the pharmacist overseeing AMS in our institution to identify patients who will most benefit from an intervention, while also minimizing the time needed to make this intervention."

PATRICE LAMARRE
Chief Pharmacist
Centre Hospitalier Universitaire de Sherbrooke (CHUS)

* Nault V. et al. "Sustained impact of a computer-assisted antimicrobial stewardship intervention on antimicrobial use and length of stay" Journal of Antimicrobial Chemotherapy, Volume 72, Issue 3, March 2017



DISCOVER BIOMÉRIEUX VISION SUITE DATA-DRIVEN DECISION MAKING

BIOMÉRIEUX VISION SUITE turns laboratory and hospital data into insightful, actionable information to support diagnostic and clinical decisions at all stages to better support antimicrobial stewardship.

By providing a comprehensive suite of software solutions that collect, analyze, and merge various sources of data, BIOMÉRIEUX VISION SUITE empowers you to make the right decisions at the right time.

CASE STUDY



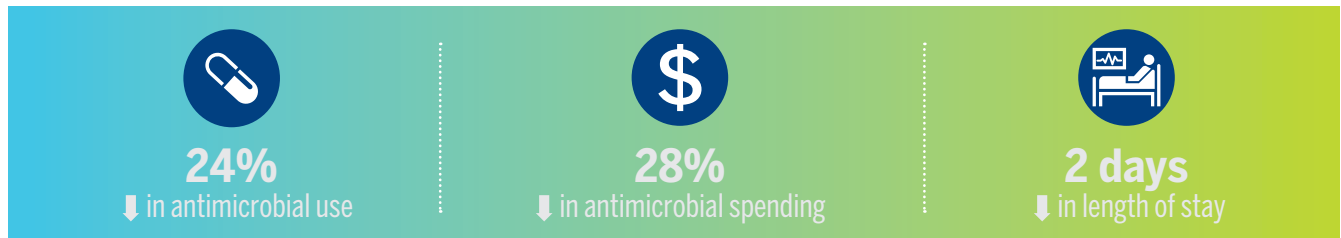
Centre Hospitalier Universitaire de SHERBROOKE (CHUS)
Quebec, Canada

STEWARDSHIP DRIVEN BY APSS™ HAS A SUSTAINED IMPACT. THE NUMBERS SHOW IT.

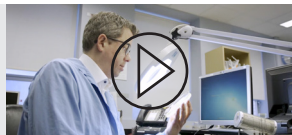
A published study evaluated the impact of an Antimicrobial Stewardship Program supported by APSS™ at the Centre Hospitalier Universitaire de Sherbrooke (CHUS) in Quebec, Canada. APSS™ software was used to monitor patients' clinical information in real-time, continually evaluating the appropriateness of the treatment and accounting for other patient conditions such as cystic fibrosis or hemodialysis.

They controlled for factors such as appropriateness of drug selection for diagnosis; contraindications; drug interactions; cost-saving drug selection alternatives; maximum daily dose; maximum/minimum dose; frequency of administration, maximum duration and route of administration. The study demonstrated a positive impact on antimicrobial use, antimicrobial and spending, length of stay and reduction of inappropriate prescriptions.

THEY FOUND:



Source: Nault V. et. al. "Sustained impact of a computer-assisted antimicrobial stewardship intervention on antimicrobial use and length of stay" Journal of Antimicrobial Chemotherapy, Volume 72, Issue 3, March 2017



WATCH THE VIDEO



Optimization of dosage according to personalized data, more than 1000 rules:

- Renal function
- Cystic fibrosis
- Morbid obesity
- History of *Pseudomonas aeruginosa* infection
- Hemodialysis

Types of rules:

- Over 400 referenced drug interaction rules
- Asymptomatic bacteriuria
- Management of spectrum redundancy
- Smart review of allergy history
- IV-> PO migration
- Follow-up of serum assays

WILL YOU BE THE NEXT SHERBROOKE?