

THE STATE OF AMR

Resistance moves every week. The report arrives once a year.

39M

deaths caused directly by antimicrobial resistance, 2025–2050.

GRAM, The Lancet, 2024

35k

people die each year in the EU/EEA from resistant infections.

ECDC, 2022

1x

a year: how often Tyks compiles its hospital-level susceptibility report.

Tyks × Mylab challenge brief

”A DOCTOR CHOOSING ANTIBIOTICS WANTS UP-TO-DATE SUSCEPTIBILITY OF BACTERIA IN THEIR OWN WARD.”

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THE PROBLEM

Too late, too coarse, too noisy.

- **Too late, too coarse.** One antibiogram a year for the whole hospital. The doctor needs their own ward, this month, while the patient is in front of them.
- **Small numbers lie.** A four-week ward view has a handful of isolates per drug. Hide them and the screen is empty; show "3 of 4" as 75 % and someone acts on noise.
- **Alarm fatigue.** Test every ward × bug × drug every week and false alarms bury the one cluster that matters. Infection control stops reading.

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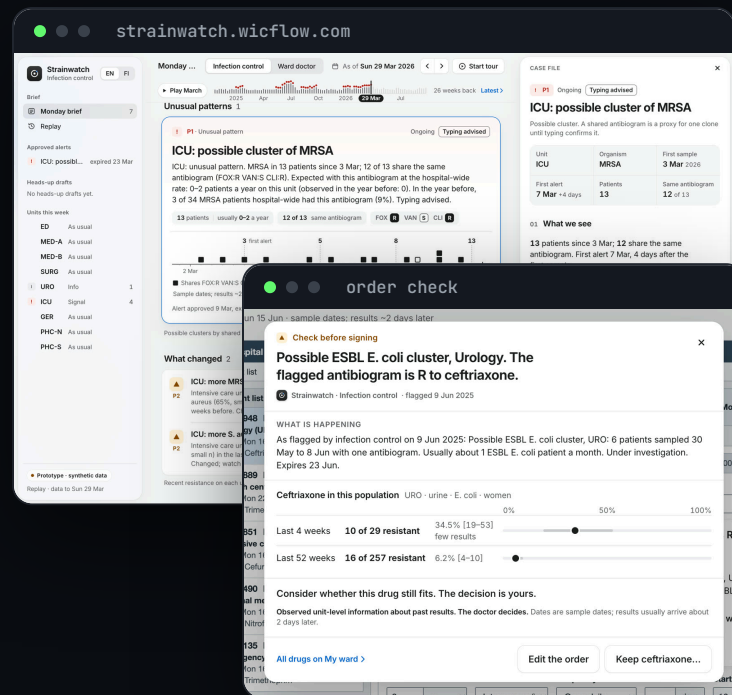
THE SOLUTION: STRAINWATCH

Weekly resistance surveillance on the lab data Tyks already has. One engine tells infection control what changed, the ward doctor what still works, and the prescriber when the drug they are ordering is hit.

ONE ENGINE, THREE MOMENTS

From the lab's nightly data to the decision, with the evidence attached.

- **Monday brief.** Infection control gets what changed this week, ranked P1-P3. Each item has a case file: patients, timeline, shared antibiogram, method.
- **My ward.** The doctor sees the last 4 weeks next to the last 52, as "R of n" with an interval. Too few isolates? It says so, never a fake percentage.
- **Order check.** When an approved alert covers the drug being ordered, the doctor sees it at signing. The decision stays theirs.



An answer at the point of decision beats another chart.

EARS-Net / FiRe → Country level, invasive isolates only

WHONET → Analyst-driven desktop tool

Strainwatch → The ward's answer, the week it changes

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Not at patient 13. That is the whole point of watching weekly.

4 days

from the first MRSA sample to the first alert on ICU.
The cluster later grew to 13 patients, 12 with the same
antibiogram.

ICU, March 2026 · replayed week by week

Strict as-of replay: every screen shows only what was known on that date.

6% → 35%

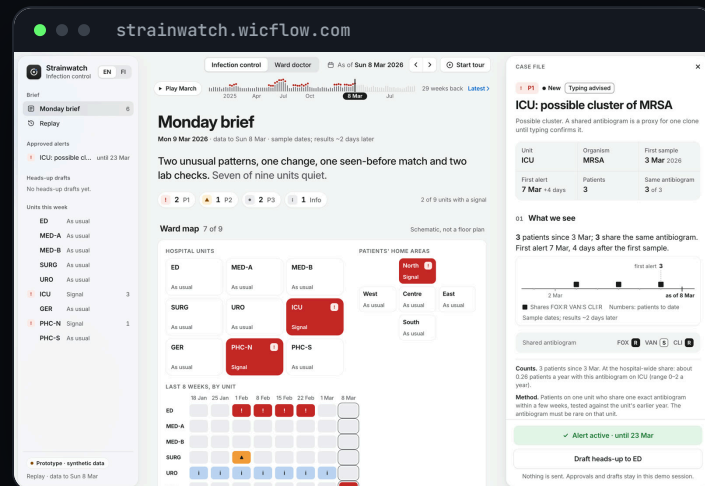
ceftriaxone resistance in Urology women's urine E. coli: 16 of 257 over the year, 10 of 29 in the last 4 weeks. Shown at signing.

URO ESBL E. coli, flagged 9 Jun 2025

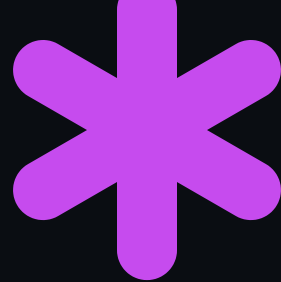
BUILT AND VALIDATED IN 24 HOURS

A working product, and numbers you can check.

- **Live now.** strainwatch.wicflow.com, hosted in Helsinki, English and Finnish, with a replay slider over two years.
- **Nine detectors, no black box.** Shared-antibiogram clusters, THL rules for CPE, VRE, ESBL and MRSA, change against the ward's own year, silent wards. Every number comes from code.
- **296 tests.** Headline numbers are re-derived from the raw CSVs with plain pandas and must match.
- **Fits Tyks today.** Runs on the nightly lab extract. No new law, no Findata permit, no EHR change. HL7 CDS Hooks ready for later.



strainwatch.wicflow.com · github.com/Wicflow-0y/jx26-tyks



CATCH IT EARLY.

Team Wicflow