

Baxter

ICNET

CLINICAL SURVEILLANCE SOFTWARE

NATIONAL SUITE

**MORE CLINICAL EXPERIENCE.
MORE MARKET-LEADING INNOVATION.
MORE PEOPLE PROTECTED.**

ICNET NATIONAL SUITE — Supporting better public health outcomes through integrated disease surveillance, prevention and control



A MORE Evolved Surveillance Solution for a Growing Public Health Challenge

The increasing threat of serious infectious diseases cuts across borders and impacts populations from the public health level down to individual lives — fuelled by factors that include increasing antimicrobial resistance, emerging infectious diseases, globalisation, and the threat of bioterrorism.

As the foundation for infection prevention, clinical surveillance solutions must evolve alongside this growing public health challenge to better enable healthcare professionals to protect the healthy and care for the ill.

“A nation’s ability to PREVENT AND MANAGE EPIDEMICS is severely crippled without robust infectious disease surveillance”

– Leadership Institute for Global Health Transformation¹

10 MILLION

deaths projected annually by 2050 due to antimicrobial resistance (AMR)³

Pandemic flu is **#1 RISK** for UK civil emergency in next five years²

“...TACKLING AMR IS ABSOLUTELY ESSENTIAL.

It needs to be seen as the economic and security threat that it is”

– Jim O’Neill, Review on Antimicrobial Resistance³

GAPS IN CLINICAL SURVEILLANCE RESULT IN NEGATIVE HEALTH OUTCOMES

A number of gaps exist in clinical surveillance today, ranging from human error, system inadequacies and inefficiencies, fragmented infrastructure, low-quality data, delayed reporting, and inadequate reach of surveillance efforts.¹ In 2014, only 33% of World Health Organization (WHO) member states had the surveillance capabilities required by International Health Regulations, which had been established seven years prior.⁴

When these gaps occur, they provide unwelcome opportunity for national-level events to emerge or spread in ways that may have been contained or even prevented — the outbreak of cholera in Haiti in 2010, viral hepatitis in the U.S. in 2013, and the bubonic plague in China in 2014, just to name a few.

“

... for a surveillance system to continue to be effective ... it needs to evolve to meet current and foreseeable challenges”

Leadership Institute for Global Health Transformation¹

HOW WE HELP

With nearly 20 years supporting infection control and antimicrobial stewardship programs, **ICNET** National Suite meets today’s public health challenges with the future in mind. We continually refine our software to keep pace with changing scientific knowledge in order to deliver a best-in-class solution for clinical surveillance.

The products housed within **ICNET** National Suite offer a holistic approach to clinical surveillance that can be configured to align with your workflows today and adapted as your needs evolve to meet shifting public health concerns. All National Suite products share a common data set, supporting a coordinated approach to managing infection surveillance, prevention and control efforts at the mass population level to prevent current and emerging epidemic threats.

WHO WE HELP

ICNET’s extensive depth and breadth of functionality serves a variety of health and research disciplines in the public health arena.

- Communicable disease experts
- Infection prevention specialists
- Public health officials
- Epidemiologists
- Microbiologists
- Pharmacists

WHERE WE HELP

Knowledge provided through **ICNET** National Suite serves to inform entities that include Ministries of Health, Ministries of Finance, Public Health Agencies and policy makers, among others.

ICNET Infection Checker technology ensures high sensitivity and specificity of data.⁵

93.6%
SENSITIVITY
in identifying
HCAI

99.8%
SPECIFICITY
in identifying
HCAI

98.4%
SENSITIVITY
in identifying
antimicrobial use

100%
SPECIFICITY
in identifying
antimicrobial use

Improving Hospital Performance Across the Country

ICNET's Registry and Point Prevalence Survey (PPS) products provide national data collection for hospital infections and antimicrobial usage to support continued quality improvement initiatives that reinforce best practices, reduce healthcare-associated infection (HCAI) rates and lower associated expenditures.

OUR ADVANCED DATA CAPTURE PRODUCTS HELP:

- Enhance the exchange of health information via an integrated platform
- Automate and streamline what has historically been a manual data capture process
- Reduce cost and resource burden
- Avoid human error
- Empower decision-makers with timely, accurate evidence
- Measure, benchmark and goal-set to improve patient care
- Reallocate time saved on surveillance activities to focus on patient care

POINT PREVALENCE SURVEY (PPS)

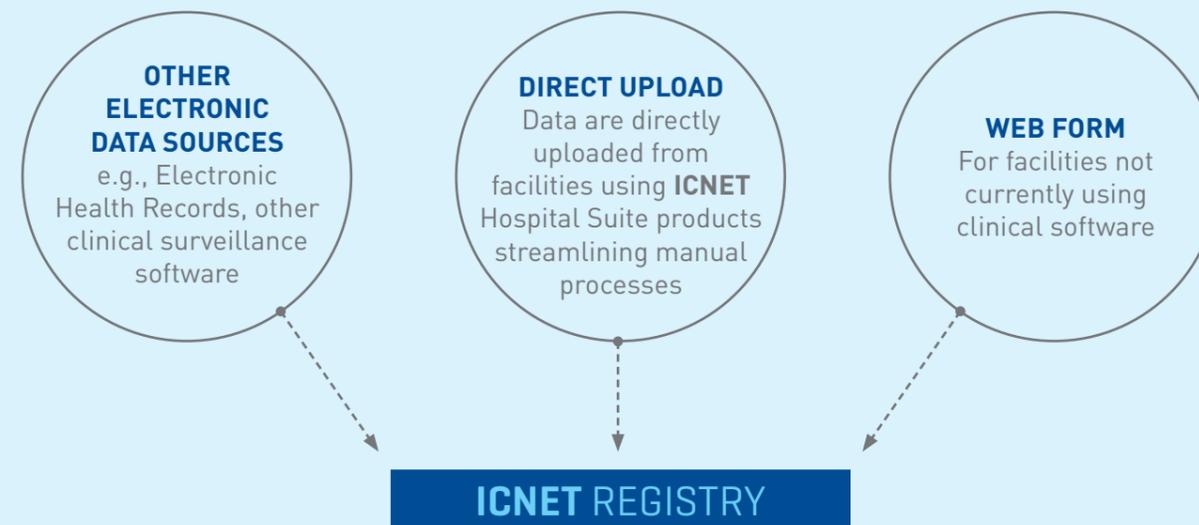
ICNET PPS provides a snapshot of infections and antimicrobial use in hospitals in a single day, providing insight into infection prevalence and burden, as well as the quantity and types of antimicrobials currently in use. PPS ensures the collection of high quality and consistent data through:

- A simplified, well-designed data collection process to improve ease-of-use and accuracy for clinicians conducting PPS
- Guided decision-making with Infection Checker technology
- Business Intelligence integration for comprehensive reporting
- ECDC-compliant reporting format standards

REGISTRY

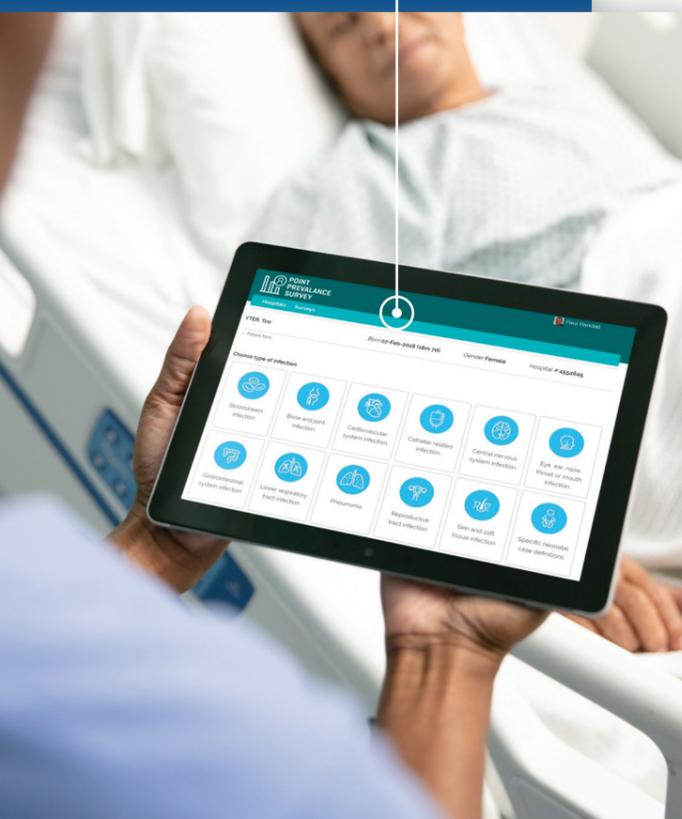
ICNET Registry collates patient-level data on infections acquired in hospitals (MRSA, *C. difficile*, SSIs, CLABSIs, CAUTIs, VAP) at a national level to provide a comprehensive picture of infection rates across a country. The software effectively centralises what has traditionally been disparate data, allowing users to monitor healthcare quality and help drive systemic improvement. Registry is customised to meet the data collection, storage and reporting functionality required for programmes to aggregate actionable data that enables meaningful change.

SEAMLESS AGGREGATION OF NATIONAL DATA FROM DISPARATE SYSTEMS



Registry allows users to benchmark HCAI rates among hospital facilities, groups or regions, identify outliers and set improvement targets, and assess the efficacy of any interventions put in place.

ICNET's Registry tool was used for the New Zealand Surgical Site Infection (SSI) Improvement Programme, which achieved improved quality of patient care and financial outcomes.⁶



Supporting Whole Population Health

The Outbreak Manager, Case Manager and Protect products within **ICNET** National Suite offer an extensive breadth of software capabilities to support whole population disease control and both routine and preventative medication administration. Together these products provide a holistic approach to addressing infectious disease public health concerns.

PROVIDE

early insight into public health emergencies

INFORM

public health policy and strategies

DOCUMENT

progress and impact of interventions

INCREASE

efficiency of public health teams

IMPROVE

population care

OUTBREAK MANAGER

ICNET Outbreak Manager arms public health communicable disease specialists with broad functionality to help them efficiently and effectively investigate, manage, and predict outbreaks in the public health setting. Our robust data analysis, tracking and visualisation tools and configurable workflows support a highly coordinated approach befitting the magnitude and complexity of outbreaks occurring in the public arena.

COLLECT: Rich data collection and case definitions ensure a complete and accurate picture of an outbreak or multiple outbreaks across public settings that include humans, animals and/or environmental reservoirs.

INVESTIGATE & TRACK: Robust visualisation screens help to quickly identify patterns and relationships within outbreaks, saving investigative effort and driving timely action. These include outbreak timelines and mapping, epidemiological curves, and network diagrams depicting chains of transmission. Users can document, track and share progress toward defined goals, with the ability to link multiple outbreaks for an integrated approach to disease management.

COORDINATE: Helps coordinate intervention activities among public health teams covering large populations, with built-in algorithms to help analyse interventional needs and allocate resources accordingly.

PREVENT: Timely facilitation of outbreak investigation helps teams more efficiently interrupt disease transmission, reducing scope and length of outbreaks and the resulting morbidity, mortality and costs.

CASE MANAGER

ICNET Case Manager is a case management tool for public disease notifications covering notifiable diseases, foodborne illnesses, border controls, overseas outbreak monitoring, quarantine and health surveillance. This truly universal case management tool is designed to cater to the diverse needs among specialised investigation teams and support onsite data collection wherever an emergency is occurring.

- Integrates directly with Outbreak Manager for a comprehensive approach to disease management
- Timely alerting on a priority basis enables quick intervention
- Allows for concurrent work on a case by multiple users; data synchronisation functionality ensure all users have most up-to-date information
- Highly configurable for all scenarios, workflows, user types
- Data sourced directly into system from ad-hoc, local or transport settings

PROTECT

ICNET Protect enables public health infection prevention specialists to effectively monitor and manage vaccination and other preventive medicine activities for routine and mass emergency prevention scenarios. The software applies defined protection requirements, formulary parameters, and adverse event tracking as they apply to Routine and Mass Preventative Medication Administration (MPMA) to populations.

ICNET PROTECT SOFTWARE IS CONFIGURABLE TO THE HIGHLY DIFFERENTIATED NEEDS OF THE DIFFERENT POPULATIONS REQUIRING VACCINATION



MPMA

Protect for MPMA was developed to help manage the large-scale, fast-moving scenarios associated with response to pandemic threats.

Scaleable for whole population administration, with configurability to target appropriate members
Supports clinic staffing and rostering for ad-hoc scenarios
Tools for management and inventory of vaccine stock supplies
Visual workboards to coordinate and track progress



ROUTINE

Protect for Routine Vaccination supports activities related to childhood and travel vaccination.

Configured with travel and other routine vaccination requirements
Supports targeting of programs and information
Centralises population vaccination data for compliance reporting



ICNET CLINICAL SURVEILLANCE PLATFORM



A **MORE** Integrated Approach to a Complex Challenge

ICNET is the only platform to provide a seamless solution across the hospital and public health settings, ensuring **MORE** people are protected.

ICNET Hospital Suite supports infection prevention professionals within the healthcare facility setting, while **ICNET** National Suite supports public health communicable disease professionals at the mass population level. Together they support a holistic approach to clinical surveillance, outbreak management and antimicrobial stewardship, with customisability to meet the specific needs of your organisation.

Effective clinical surveillance has been shown to improve health outcomes by providing early warnings of emerging threats and data to identify and act on long-term trends.³

Visit [ICNETsoftware.com](https://www.icnetsoftware.com) to request a demo.

1. Leadership Institute for Global Health Transformation. Today's challenges in outbreak preparedness: the role of surveillance. Saw Swee Hock School of Public Health, National University of Singapore. 2016. 2. National Risk Register Of Civil Emergencies 2017 edition https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/644968/UK_National_Risk_Register_2017.pdf 3. Review on Antimicrobial Resistance. Tackling drug-resistant infections globally: final report and recommendations. May 2016. 4. World Health Organization. Emergencies preparedness, response. The warnings the world did not heed. <https://www.who.int/csr/disease/ebola/one-year-report/ihr/en/> 5. Public Health Wales NHS Trust. National Point Prevalence Survey of Healthcare Associated Infection, Device Usage and Antimicrobial Prescribing 2017, Wales. 6. Morris AJ, Roberts SA, Grae N et al. The New Zealand Surgical Site Infection Improvement (SSII) Programme: a national quality improvement programme reducing orthopaedic surgical site infections. *NZMJ*. 2018;131:45-57.

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