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Editorial

Infection prevention in the 1990s

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While many of us were recording episodes of Seinfeld on VHS tape, listening to the Backstreet Boys on our Walkman cassette players, or trying out our new Nintendo video console, important advances in infection prevention were occurring. Before the advent of the internet, infection control nurses were reading about these advances in the printed pages of AJIC or ducking out to their local hospital library to read the latest issue—while neatly dressed in a bomber jacket and parachute pants.

Four articles from the 1990s selected for the 50th anniversary represent core domains of infection prevention and control practice that remain relevant even in 2022—hand hygiene, disinfection and sterilization, infection prevention infrastructure, and healthcare-associated infection surveillance. While significant advances in each of these core domains of infection prevention have been made since the 1990s and infection preventionists continue to advance science and practice in each of these areas, it is interesting to see how the profession has progressed and reflect on where further work is needed.

Hand hygiene remains the cornerstone of infection prevention. APIC's Guidelines Committee (now called Practice Guidance), under the leadership of Elaine Larson, PhD RN CIC FAAN, published its 1995 guideline on handwashing and hand antisepsis. This groundbreaking work represented APIC's review of the then available evidence combined with a practical awareness of the challenges of soap and water handwashing and was one of the first publications to promote the expansion of alcohol-based handrubs in a variety of clinical settings.[1]

The guidelines outline antiseptic agents with additional activity and in 1994, the FDA issued draft guidance on criteria to recognize hand hygiene products as "Generally Recognized As Safe/Effective" (GRAS/E). It was not until 2019—armed with increased knowledge of the efficacy of these agents, as well as potential environmental and health impacts—that this rule was finalized.

In 2022, Infection Preventionists continue to advocate for changes to hand hygiene products and to evaluate products for adoption based on efficacy. Increasing attention has been paid to the tolerability and acceptability of these agents as well as the best methods to promote and encourage compliance with hand hygiene. With over 1,000 alcohol-based products on the market by 2022, Infection Preventionsts remain the recognized experts in hand hygiene.

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Cleaning and disinfection are essential elements of infection prevention and control programs across settings. Again, APIC led the way publishing its disinfection selection and use guideline in 1990 and revised in 1996. The APIC Guidelines Committee, under the guidance of William Rutala, PhD MPH CIC, used its knowledge and background to highlight the importance of the efficacy of agents in real-world settings.[2] Applying Spaulding's 1968 classification of medical equipment, this publication was one of the first to address a hierarchy of pathogens and their susceptibility to antiseptic agents. This guideline also represents APIC's collaboration with industry partners to develop and promote best practices. In 2022, APIC's Strategic Partners and Corporate Champions remain important allies in APIC's vision of advancing the science and practice of infection prevention and control.

Guidelines on infection prevention and control published in 1998 highlight the need for Infection Control Professionals (ICP) and critique the long-standing recommendation of one ICP per 250 beds given the burgeoning amount and increased complexity of IPC work.[3] In 2022, it remains vital to demonstrate the impact of IP staffing on patient outcomes and to make evidence-based recommendations on staffing across settings.

At the time, the guidelines also recommend that ICPs have the latest technology available to support training and education—including a 35 mm slide projector, overhead projector and TV with VCR. While our technology to support training and education has changed, what has not changed are the principal goals of infection prevention and control programs to protect patients, healthcare workers, and visitors in an efficient and cost effective manner.

Accurately identifying and tracking rates of healthcare-associated infection is critical to implementing evidence-based prevention measures. In 1991, authors from the Center for Infectious Disease at the Centers for Disease Control outlined the National Nosocomial Infections Surveillance System (NNIS) surveillance methods. Four NNIS components addressed surveillance hospital-wide, in intensive care units, high-risk nurseries, and in surgical patients. Infection preventionists in 2022 may admire the simplicity of reporting denominator data as "the number of patients admitted and discharged by month."[4] By 2022, NNIS has evolved in to the National Healthcare Safety Network (NHSN) provides guidance across multiple settings—including acute care hospitals, long-term care, healthcare personnel, dialysis, and other settings.

Contrasted with NNIS's description including 7 pages of text, the 2022 Patient Safety Component Manual is now over 430 pages with

hundreds of pages of additional documentation on data entry and HAI-specific reporting. In addition, hours of training are available through what might have appeared like science fiction to our 1990s colleagues—YouTube videos, PowerPoint presentations, and web-based self-paced training.

These articles demonstrate that while there have been many advances in the roles, techniques, and approaches used by infection preventionists, the core goals and many of the techniques of infection prevention remain the same. APIC's mission to "advance the science and practice of infection prevention" will remain relevant for the next 50 years!

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