Immunizations

Description

Immunizations (vaccinations) are among the most cost-effective clinical preventive services,\textsuperscript{1,2} yet vaccine-preventable diseases that were thought to be nearly eradicated are now increasing in prevalence because vaccination levels in some areas of the United States are dropping.\textsuperscript{2,3} Some states have implemented nonmedical exemptions allowing for personal preference when deciding whether to immunize a child.\textsuperscript{4} Communities with pockets of unvaccinated and under-vaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases due to decreased herd (community) immunity.\textsuperscript{4,4}

The remarkable success of vaccination programs in eliminating or greatly reducing the impact of diseases that once threatened everyone — e.g., smallpox, polio, diphtheria — have caused a shift from fears of contracting vaccine-preventable diseases to concerns about complications arising from the vaccines themselves.\textsuperscript{4–6} Patient surveys reveal long-standing fears of links between vaccinations and autism and also of the possible harmful effects of thimerosal when present in vaccines to prevent microbial contamination\textsuperscript{4,5} Although the research claiming to show a link to autism was fraudulent\textsuperscript{7} coupled with the fact that thimerosal is no longer in vaccines for children, some fears persist.\textsuperscript{5} While it is true that vaccines are not free from adverse effects, the rare reactions that do occur are almost always mild.\textsuperscript{8} The benefits of vaccination (and the problems of under- or non-vaccination) are magnified in the case of healthcare workers (HCW), who have a responsibility to provide a safe and healthy environment for their patients. Authors of a meta-analysis of cohort and case studies concluded HCW vaccination against influenza enhances patient safety and likely reduces patient morbidity and mortality.\textsuperscript{9} Results of another study in nursing homes support influenza vaccination of HCWs who care for institutionalized older patients.\textsuperscript{10} This is a controversial subject, however, and HCW are being vaccinated against influenza at a rate of 63%, well under the US Department of Health and Human Services national benchmark of 90%.\textsuperscript{11} Much of the controversy stems from reports in the United States media of nurses being fired for refusing the influenza vaccine, sparking a debate over employee rights versus patient safety,\textsuperscript{12–14} with even one physician organization coming out against mandatory vaccinations for HCW.\textsuperscript{15} However, the Centers for Disease Control and Prevention (CDC) recommends influenza vaccines for HCW,\textsuperscript{16} and in states such as Rhode Island, it is mandatory.\textsuperscript{17}

ENA Position

It is the position of the Emergency Nurses Association that:

1. Emergency nurses promote public health by being vaccinated themselves.
2. Emergency nurses advocate vaccination for everyone in accordance with the most current Centers for Disease Control and Prevention (CDC) immunization schedules.
3. Emergency nurses screen the relevant immunization status of all patients.
4. Emergency nurses maintain knowledge of credible information sources and increase their own understanding of vaccine risks, benefits, effectiveness, and safety to enable them to inform and instruct their patients.
5. Emergency nurses support continued evidence-based research and follow updated guidelines as infectious epidemiology changes.
7. Emergency nurses collaborate with interprofessional colleagues, hospital leaders, and regulatory organizations to find a safe and equitable approach to immunization.
Background

Immunization is an important but underused opportunity to reduce vaccine-preventable diseases in child, adult, and older adult populations.\textsuperscript{18} Despite their potential not being fully exploited, vaccines have prevented the loss of countless individuals to diseases and they can create herd immunity once a sufficient fraction of the population is protected.\textsuperscript{2,4} Current immunization recommendations in the United States target 17 diseases that can occur throughout the lifespan, including some that strike older adults.\textsuperscript{1,19}

There are concerns about the age at which to start childhood immunizations, the intervals between doses, and scheduling that requires a child to receive multiple vaccinations at one time. To address the timing issues, the American Academy of Pediatrics evaluates the most recent scientific data every year to determine the age that achieves the best balance between immune response and the need to provide protection at the earliest age.\textsuperscript{20} As for concerns over multiple vaccinations at the same time, researchers theorize that children will be exposed to 150 antigens over the course of the entire immunization schedule, which pales in comparison with the 2,000–6,000 antigens that children are exposed to daily while playing, eating, and breathing.\textsuperscript{20}

The Institute of Medicine acknowledges not all people can be administered certain vaccines safely because of the potential for anaphylaxis, for example, and immunodeficient patients clearly cannot be given a live vaccine.\textsuperscript{8} Overall, however, there are few adverse effects and the risks are low.\textsuperscript{8} The Food and Drug Administration tests for safety and continually re-evaluates all vaccines that enter the market.\textsuperscript{8} The national \textit{Healthy People} 2020 goal is to increase immunization rates and reduce the overall number of preventable infectious diseases, which it is estimated claim the lives of nearly 42,000 adults and 300 children every year in the United States.\textsuperscript{1,18} Immunizations remain one of the most potent tools available for disease prevention and are a safe and cost-effective way to promote and maintain public health.\textsuperscript{1,2,8}

The World Health Organization established a \textit{Vaccine Safety Net} to provide balanced, evidence-based safety information for key stakeholders such as parents, patients, and healthcare personnel.\textsuperscript{21} Learning about vaccines from reliable sources, getting vaccinated, and responding factually to our patients’ questions and concerns will lead us toward the \textit{Healthy People} 2020 goal of a highly immunized society.\textsuperscript{1,2} Emergency nurses, in their role as patient and community educators, have a unique opportunity to inform patients and promote vaccinations that is supported by public health research findings.\textsuperscript{1}

Resources

Centers for Disease Control and Prevention at \url{http://www.cdc.gov/vaccines/}
\url{http://www.cdc.gov/vaccines/hep.htm}
\url{http://www.cdc.gov/flu/healthcareworkers.htm}

Immunization of Healthcare Personnel at \url{http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm}

American Academy of Pediatrics at \url{http://www.aap.org/immunization/izschedule.html}


Advisory Committee on Immunization Practices at \url{http://www.immunize.org/acip}

References


Authors
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