Evidence-Based Practices to Improve Safe Injection Practices in Post-Acute Care Settings

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BACKGROUND

Medications are injected either into the human body directly or via intravenous medical devices frequently in healthcare settings to delivery necessary and lifesaving medication to patients. With these injections comes associated risks for transmission of healthcare associated infections. Unsafe injection practices not only put the patient at risk, but can also trigger occupational exposure to the entire healthcare team, and specifically bedside nurses responsible for delivering the patient’s medication therapies.

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The transmission of healthcare associated infections because of unsafe injection practices is completely preventable, and healthcare staff can also decrease potential drug diversion through adherence to the current evidence based standards available from both the World Health Organization (WHO) and the US Centers for Disease Control and Prevention (CDC). Numerous outbreaks have been reported worldwide associated with unsafe injection practices as well as the use of common medical devices such as blood glucose meters.1,2

CDC reports over 385,000 needlesticks and other sharps-related injuries to hospital healthcare providers, but accurate figures are not currently available for providers that work in post-acute care settings. These occupational exposures can transmit a variety of bloodborne pathogens.

Government’s Role in the Promotion of Safe Injection Practices

Both the CDC and the Food and Drug Administration play critical roles in improving safe injection practices through the advancement of evidence-based practices as well as regulating medical devices such as syringes and medication delivery systems. Specifically, the CDC works with multiple partners to conduct scientific research, create guidelines, and investigate and learn from outbreaks that result from unsafe injection practices. CDC regularly collaborates with the Safe Injection Practices Coalition to develop and implement educational campaigns to promote safe injection practices and to raise awareness with not only healthcare professionals but equally important with patients. This education can empower patients to feel comfortable in speaking up when they suspect unsafe injection practices are occurring during the delivery of their care. In addition, the CDC Healthcare Infection Control Practices Advisory Committee (HICPAC) has released specific recommendations that are considered standard precautions to protect both the patient and the healthcare professional from harm associated with injection practices.

From a regulatory standpoint, CDC collaborates with the Centers for Medicare and Medicaid Services (CMS) to ensure regulatory action is taken against facilities that demonstrate unsafe injection practices. CMS has oversight for healthcare facilities that receive any form of federal Medicare or Medicaid payment for healthcare delivery. As part of the accreditation and regulation process, CMS can not only withhold funding of post-acute care facilities, but also can take legal action against noncompliant facilities as unsafe injection practices constitute an immediate jeopardy citation. The CDC has also launched a multidisciplinary campaign, called the One and Only Campaign, which is a concentrated public health effort to eliminate unsafe injection practices. This campaign offers at no charge resources for all healthcare providers, educational toolkits, and continuing education

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opportunities for registered nurses. Additional information about the CDC campaign is available in the additional resources section of this article.

The Occupational Safety and Health Administration (OSHA) also plays a role in protecting healthcare professionals through the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030). In the OSHA standard, there are specific requirements regarding injections which are designed to minimize employee exposure and include the safe use of medical devices (i.e. syringes, lancets, etc.), needleless devices, shielded needle devices and plastic capillary tubes. All healthcare providers and facilities are required to comply with the Bloodborne Pathogens Standard as part of federal law and are subject to enforcement by OSHA inspectors. OSHA’s sole purpose is to protect the worker, which is in this case the healthcare professional.

Summary

Unsafe injection practices continue to be both a patient safety risk and a potential source of occupational exposure for healthcare professionals in post-acute care settings. Healthcare professionals that administer injections must be fully trained in the core components of safe injection practices at the time of hire, but also as part of their annual competencies as consistent with their role. There are many free training resources available to aid in ensuring competency. As nursing leaders in post-acute care settings, there is an ongoing obligation to improve patient safety and reduce the incidence of adverse events such as healthcare associated infections resulting from unsafe injection practices. Site care for the patient’s injection sites is also recommended as well as the use of the appropriate needles and syringes for the patient’s specific therapy. The use of the correct needle length, for example, can ensure subcutaneous delivery is achieved versus accidental intramuscular delivery.

All healthcare professionals, including the nurse, have a role in infection control, however the nurse is typically responsible for the delivery of medication. As such, nursing plays the most significant role in prevention of adverse events, but also has the largest potential for noncompliance if not properly trained in the evidence based standards for safe injection practices. Safe injection practices are not limited to injections, but also apply to commonly used diagnostic practices such as obtaining a blood glucose reading. Safe Injection practices must be universally applied across the entire post-acute care continuum of care, and staff should engage in prevention and accountability to ensure patient safety.

Additional Resources for HAI Reduction

- Information for Providers, Centers for Disease Control and Prevention, https://www.cdc.gov/injectionsafety/providers.html
- One and Only Campaign, Centers for Disease Control and Prevention, http://www.oneandonlycampaign.org/content/audio-video

About the author

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References

4 The One and Only Campaign, electronically accessed from https://www.cdc.gov/injectionsafety/1anonly.html, December 1 2016, Centers for Disease Control and Prevention.