

Severe Staph Infections Linked to Unsafe Use of Single-Dose/Single-Use Vials

With certain drugs in short supply, some health care professionals may be tempted to use single-dose/single-use medication vials for more than one patient, a practice that goes against the Centers for Disease Control and Prevention's (CDC) 2007 Standard Precautions. New outbreak reports provide a frightening reminder of these critical recommendations: medications labeled 'single-use' or 'single-dose' must be used for one—and only one—patient.

The [CDC](#) reported in the July 13 issue of [MMWR](#) that 10 patients in Arizona and Delaware contracted severe methicillin-susceptible *Staphylococcus aureus* (staph) or methicillin-resistant *S. aureus* (MRSA) infections at outpatient facilities where practitioners reused medication from single-dose/single-use medication vials for multiple patients.

“As health professionals, our job is to heal, not to harm,” said [X](#). “It’s imperative that we double check ourselves and our colleagues to ensure that medications coming in single-use/single-dose vials are used for only one patient.”

In Arizona, three patients contracted invasive MRSA infections following injections from the same single-dose/single-use vial at an outpatient pain management clinic. Patients were treated for acute mediastinitis, bacterial meningitis, epidural abscess and sepsis. A fourth patient who received an injection from the same vial was found dead at home six days after treatment at the clinic. Cause of death was reported as multiple drug overdose; however invasive MRSA could not be ruled out.

Seven patients in Delaware were diagnosed with severe staph infections after receiving joint injections at the same outpatient orthopedic practice. Staff at the clinic had recently started to use single-dose/single-use vials for multiple patients after their supply of a smaller vial size (which they had previously dedicated for single –patient use), was disrupted as part of a national shortage. Two staff members who were responsible for preparing injections were found to be colonized with *S. aureus*, and one was an identical match to the strain that infected the seven patients.

Since 2007, the year that injection safety was included as part of Standard Precautions, there have been at least 20 outbreaks associated with the use of single-dose or single-use medication vials for more than one patient. Medication in single-dose/single-use vials is typically preservative-free, which makes it unsafe to use for more than one patient.

“These infections are completely preventable,” said [X](#). “Even in cases of drug shortages, patient safety must be first priority. Splitting of doses should be a last resort, and if it has to be done, clinicians should ensure that it is completed with full adherence to USP 797 standards to help minimize the risk.”

It is every provider’s responsibility to protect their patients. Refresh your knowledge of safe injection practices at the [website](#), download the [Healthcare Provider Toolkit](#), including an injection safety checklist and follow the campaign on [Twitter](#) and [Facebook](#). Every patient deserves the protection of safe injections.