## **U.S. Illnesses and Deaths Associated With Compounded or Repackaged Medications, 2001-19**

Pew's drug safety project has identified 73 reported compounding errors or potential errors associated with more than 1,562 adverse events, including at least 116 deaths, from 2001 to 2019. However, a 2015 survey found that only 30 percent of states (13 of the 43 that responded) require sterile compounding pharmacies to report serious adverse events.<sup>1</sup> Of the states that require reporting, the type of information that is required to be reported may vary, further contributing to an incomplete picture of adverse events associated with compounded medications. Even in states with strong adverse event reporting requirements, illnesses and deaths caused by compounded drugs are not always linked to the compounding error.<sup>2</sup> Because many such events go unreported, this chart is an underestimation of the number of compounding errors since 2001. Contamination of sterile products was the most common error; others were the result of compounders' miscalculations and mistakes in filling prescriptions.

Drug compounding can be an interstate operation; compounders may prepare medicines in one state and ship them to another. States may encounter oversight challenges if an out-of-state compounder shipping into their jurisdiction is held to a different quality or regulatory standard than in-state compounders. As a result, for each row below, the state where the compounding error or potential error occurred and the state(s) where the adverse event(s) occurred are listed. Harmonized minimum quality standards for anyone who compounds drugs—in any setting—across states would help address challenges in regulating out-of-state compounders and ensure that all compounding meets strong baseline criteria for preparing safe drugs and protecting patients.

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  |                    | ning sale drugs and pro   
   | tecting patients.  |  
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| Year   | Reported<br>cases   
   
  | Reported<br>deaths | <b>Adverse event(s)</b><br>Nausea, vomiting,<br>lightheadedness,  
   | Compounding<br>error<br>Product was labeled<br>for use in dietary  | Product  
  | State where<br>compounding<br>occurred   | State(s)<br>where adverse<br>event(s)<br>occurred   
  | Notes  |
| 2018-<br>2019 <sup>3</sup>   | 8   
   
  |                    | lightheadedness,<br>chills, fever, shaking,<br>body aches, sneezing,<br>low blood pressure,<br>difficulty breathing,<br>hospitalization   
   | supplements, not<br>injectable drugs;<br>contained excessive<br>levels of bacterial<br>endotoxin   | Injectable drug compounded<br>with L-glutathione 200mg/<br>mL powder   
  | Not reported   | Not reported  
  | The distributor of the ingredient<br>L-glutathione was located in<br>Alabama, but the location of the<br>compounders was not reported.   |
| 2001-<br>2018⁴   | 23  
   
  | At least 2         | Irregular heart rhythm,<br>seizures, potentially<br>lethal arrhythmias,<br>fainting, cardiac arrest,<br>and death   
   | Products contained<br>cesium chloride,<br>which is not<br>approved by FDA to<br>treat disease.   | Compounded products containing cesium chloride   
  | Not reported   | Not reported  
  | Patients were administered cesium<br>chloride to treat their cancer. It is not<br>approved for this indication, and FDA<br>subsequently issued a compounding<br>risk alert and banned its use in<br>compounded products.   |
| 2016-<br>2018 <sup>5</sup>   | 46  
   
  |                    | Eye inflammation,<br>eye infections, high<br>eye pressures, color<br>variation, spots over<br>vision  
   | Not reported   | 28 adverse events were<br>related to eye injections of<br>repackaged sterile Avastin<br>(bevacizumab); source of<br>remaining 18 adverse events  
  | FL   | Not reported  
  | Adverse events were identified upon<br>inspection. Compounding facility<br>failed to report these adverse events<br>to FDA, and did not conduct an   |
|  |   
   
  |                    | Endometrial cancer,<br>prostate cancer,   
   |  | not reported.  
  |  |   
  | appropriate investigation.<br>During a routine inspection, FDA<br>identified a total of 4,202 adverse<br>events that had been reported to the<br>distributor of the products but never   |
| 2013-<br>2018 <sup>6</sup>   | At least 61   
   
  |                    | strokes, heart attacks,<br>deep vein thrombosis,<br>cellulitis, and pellet<br>extrusion   
   | Not reported   | Compounded bioidentical implantable hormone pellets  
  | FL and $TX^7$  | Not reported  
  | reported to FDA or the outsourcing<br>facilities that compounded the<br>products. Due to missing and<br>outdated data, only 61 adverse events<br>could be officially attributed to the<br>products themselves.   |
| 2017 <sup>8</sup>  | At least 43   
   
  |                    | Vision impairment,<br>poor night vision, loss<br>of color perception,<br>photophobia, ocular<br>discomfort, nausea,   
   | Product contained<br>multiple substances,<br>including poloxamer<br>407 and poloxamer  | Injectable steroid<br>antibiotic combination for<br>administration in the eye  
  | ТХ   | ТХ  
  |  |
| 2017 <sup>10</sup>   | 2   
   
  | 1                  | One case of<br>cardiac arrest; both<br>experienced immediate<br>hypersensitivity  
   | 407 degradants<br>Product contained<br>ungraded PEG 40<br>castor oil   | Injectable curcumin<br>emulsion infusion   
  | СА   | Not reported  
  |  |
| 201711   | 41  
   
  |                    | Septic arthritis  
   | Bacterial<br>contamination   | Intra-articular injectable   
  | NJ   | ΓN  
  | Investigation revealed inappropriate<br>use and handling of pharmacy bulk<br>packaged products.  |
| 201712   | 1   
   
  |                    | Hemorrhagic occlusive<br>retinal vasculitis   
   | Not reported   | Intraocular injectable of<br>triamcinolone, moxifloxacin,<br>and vancomycin (TMV)  
  | NJ   | Not reported  
  |  |
| 2017 <sup>13</sup>   | 2   
   
  |                    | Tissue erosion at<br>injection site   
   | High pH; no<br>glutamine detected<br>in samples  | Compounded injectable of<br>glutamine, arginine, and<br>carnitine (GAC)  
  | FL   | Not reported  
  | IV flush solutions were not compounded under quality   |
| 201614   | 17  
   
  | 2                  | Fungal bloodstream<br>infections  
   | Contamination  | Injectable saline, heparin,<br>vancomycin, and<br>ceftazidime  
  | NY   | NY  
  | standards set by the United States<br>Pharmacopeial Convention and were<br>used past appropriate beyond-use<br>dating. The two deaths occurred<br>within 12 weeks of the fungal<br>infection, but it is unclear whether the<br>deaths were a result of the infections.   |
| 2016 <sup>15</sup>   | 1   
   
  |                    | Overdose  
   | Dose of manganese<br>chloride 1,000 times<br>stronger than usual   | Injectable manganese<br>chloride   
  | Not reported   | Not reported  
  | High manganese dose of 800 mg,<br>compared with usual dose of 0.15-0.8<br>mg/day. Patient showed no resulting<br>symptoms, but manganese overdose<br>can result in side effects on the   |
| 2016 <sup>16</sup>   | 3   
   
  |                    | Overdose <sup>17</sup>  
   | dose<br>Dose of morphine<br>sulfate stronger than<br>labeled concentration   | Injectable morphine sulfate  
  | IN   | IL, IN <sup>18</sup>  
  | nerves and brain.  |
| 2016 <sup>19</sup>   | 1   
   
  |                    | Abscesses and osteomyelitis   
   | Contamination<br>Super-potent  | Unknown injectable<br>Compounded oral  
  | Not reported   | NM  
  | Investigation revealed unsafe injection and compounding practices.   |
| 2016 <sup>20</sup><br>2015 <sup>21</sup>   | 7   
   
  |                    | Thyrotoxicosis<br>Hepatitis C   
   | compounded drug<br>Contamination   | liothyronine<br>Unknown injectable   
  | SD   | Not reported<br>CA  
  | Investigation into the clinic revealed<br>infection control breaches and<br>ongoing issues with infection control<br>practices.  |
| 201522   | Several   
   
  |                    | Unspecified   
   | Adulterated and<br>misbranded drug<br>product (contained<br>different API)   | L-citrulline   
  | NY   | Not reported  
  | Some samples of the product were<br>found to contain a different amino<br>acid (N-acetyl-leucine) than what<br>the label claimed, and others did not   |
| 2015 <sup>23</sup>   | 5   
   
  |                    | Redness, swelling, and pain at injection site   
   | Contamination  | Compounded<br>betamethasone phosphate<br>and betamethasone acetate   
  | AL   | Not reported  
  | contain any L-citrulline.  |
| 2015 <sup>24</sup>   | Several <sup>25</sup>   
   
  |                    | Unspecified   
   | High dose of vitamin<br>D <sub>3</sub>   | Oral multivitamin capsule  
  | FL   | Nationwide <sup>26</sup>  
  | High vitamin D <sub>3</sub> can cause significant<br>short- and long-term effects.<br>Administration of contaminated   |
| 2014-<br>15 <sup>27</sup>  | Several <sup>28</sup>   
   
  |                    | Unspecified   
   | Contamination<br>Dose of midazolam   | Sterile products   
  | AL   | Nationwide <sup>29</sup>  
  | sterile products may result in serious<br>and potentially life-threatening<br>infections or death.<br>Compounded midazolam, a<br>sedating agent, did not match the   |
| 2014 <sup>30</sup>   | Unknown   
   
  |                    | Oversedation  
   | labeled with incorrect<br>concentration  | Injectable midazolam<br>Compounded topical   
  | IN   | Not reported  
  | concentration on the product label.<br>Oversedation can result in a range of<br>effects from increased sleepiness to<br>severe difficulty breathing.   |
| 2014 <sup>31</sup><br>2014 <sup>32</sup>   | 1<br>37   
   
  | 1                  | Toxicity<br>Not reported  
   | Not reported<br>Contamination  | anesthetic cream<br>(ketamine)<br>Intravitreal injections<br>of bevacizumab or   
  | TX   | TX<br>Not reported  
  | Bevacizumab and ranibizumab were<br>repackaged in a manner that exposed  |
| 2014-2014-2014-2014-2014-2014-2014-2014-   | 1   
   
  |                    | Severe flushing,<br>stinging, and dizziness   
   | Dose of magnesium<br>sulfate 200 times<br>stronger than labeled  | Compounded magnesium<br>sulfate  
  | TX   | Not reported  
  | sterile, preservative free vials to an uncontrolled environment.   |
| 201335   | 1   
   
  |                    | Bacterial bloodstream infection   
   | concentration <sup>34</sup>  | Injectable mineral product   
  | ТХ   | CA  
  | Voluntary recall of injectable mineral product that contained bacteria with the potential for serious infection. A patient admitted to the becaute with  |
| 2013 <sup>36</sup>   | 15  
   
  | 2 <sup>37</sup>    | infection<br>Bacterial bloodstream<br>infection   
   | Contamination  | Injectable calcium gluconate   
  | ТХ   | ТХ  
  | patient admitted to the hospital with<br>an infection of the same bacteria.<br>The Centers for Disease Control<br>and Prevention (CDC) has not<br>conclusively linked the deaths to the  |
|  |   
   
  |                    | Fever, flu-like   
   |  |  
  |  |   
  | Contaminated drug.<br>A compounded injection was recalled<br>due to complaints of fever, flu-like<br>symptoms, and soreness at the   |
| 201338   | 6   
   
  |                    | symptoms, soreness at<br>injection site   
   | Unknown  | Injectable methylcobalamin   
  | ΤX   | Not reported  
  | injection site. Subsequent Food and<br>Drug Administration inspection<br>found that sterility and quality of the<br>manufacturing process could not be<br>assured.   |
| 2013 <sup>39</sup><br>2013 <sup>40</sup>   | 5   
   
  |                    | Serious bacterial eye<br>infections<br>Fungal eye infections  
   | Contamination  | Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab-<br>triamcinolone for  
  | GA<br>Not reported   | GA, IN<br>NY  
  | Fungal infection of the eye caused significant visual impairment that  |
| 201341   | 1   
   
  |                    | Kidney failure and acute injury of the liver  
   | Unknown  | administration in the eye<br>Injectable combination<br>product for administration  
  | Not reported   | Not reported  
  | persisted for at least three months<br>from the incident.<br>Product is marketed for dissolving<br>fat. The patient developed difficulties<br>with digestion and metabolism as   |
| 2012-<br>13 <sup>42</sup>  | 12  
   
  |                    | Bacterial bloodstream   
   | Contamination  | Parenteral infusion  
  | Not reported   | IL  
  | well as kidney failure, which required<br>dialysis.<br>Facility inspection revealed<br>deficiencies in the parenteral  |
| 2012-<br>13 <sup>43</sup>  | 26  
   
  |                    | Bacterial and fungal<br>infections in skin and<br>soft tissue   
   | Contamination  | Injectable preservative-free<br>methylprednisolone acetate   
  | TN   | AR, FL, IL, NC  
  | Skin and soft tissue infections<br>resulted after intramuscular injection<br>of preservative-free product.<br>Subsequent voluntary recall of sterile   |
| 2012-<br>13 <sup>44</sup>  | 793   
   
  | 76 <sup>45</sup>   | Fungal meningitis and other infections  
   | Contamination  | Injectable preservative-free<br>methylprednisolone acetate   
  | МА   | FL, GA, ID, IL,<br>IN, MD, MI, MN,<br>NC, NH, NJ,<br>NY, OH, PA, RI,  
  | products was issued.<br>Additional products (betamethasone,<br>cardioplegia, and triamcinolone<br>solutions) produced at the facility<br>were also found to be contaminated,   |
| 201248   | 47  
   
  |                    | Fungal eye infection;<br>vision loss in majority  
   | Contamination  | Injectable brilliant<br>blue-G (BBG) retinal dye<br>and triamcinolone for  
  | FL   | SC, TN, TX, VA,<br>WV <sup>46</sup><br>CA, CO, IL, IN,<br>LA, NC, NV, NY,   
  | but adverse events linked to these products have not been reported. <sup>47</sup>  |
| 2012 <sup>49</sup>   | 7   
   
  |                    | of cases<br>Bacterial bloodstream<br>infection  
   | Contamination  | administration in the eye  
  | NC   | TX<br>NC  
  |  |
| 201250   | 1   
   
  |                    | Overdose  
   | Dose of flecainide<br>four times stronger<br>than ordered  | Oral flecainide liquid   
  | Not reported   | Not reported  
  | Flecainide toxicity can cause<br>abnormal heart rate and rhythms that<br>can be severe and life-threatening,<br>as well as increased liver enzymes,<br>which can be an indicator of liver<br>injury.   |
| <b>2012</b> ⁵¹   | 10  
   
  | 1                  | Bacterial bloodstream<br>infection  
   | Contamination  | Contrast dye, anesthetic,<br>and steroid injections—   
  | Not reported   | AZ, DE  
  | The outpatient pain clinic failed to follow standard precautions by using single-dose vials as multidose vials. <sup>52</sup>  |
|  |   
   
  |                    |   
   |  | single-dose vials.   
  |  |   
  |  |
| 2011-<br>12 <sup>53</sup>  | 15  
   
  |                    | Bacterial bloodstream<br>infection  
   | Contamination  | single-dose vials.<br>Sterile products   
  | Not reported   | WV  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,   |
|  | 15  
   
  |                    |   
   | Contamination<br>Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration   | -  
  | Not reported   | WV<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.  |
| 12 <sup>53</sup>   |   
   
  |                    | infection   
   | Dose of<br>4-aminopyridine 10<br>times stronger than   | Sterile products   
  |  |   
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term  |
| 12 <sup>53</sup><br>2011 <sup>54</sup>   | 1   
   
  |                    | Infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases  
   | Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration  | Sterile products Oral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye  
  | Not reported   | Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup>   | 9   
   
  | 9                  | Infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye   
   | Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination   | Sterile products Oral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for  
  | Not reported   | Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup>   | 1<br>9<br>12<br>5   
   
  | 9                  | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Blindness<br>Bacterial bloodstream   
   | Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Unintended<br>presence of another<br>medication   | Sterile products         Oral 4-aminopyridine pills         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye         Parenteral nutrition solution   
  | Not reported Not reported FL CA  | Not reported<br>TN<br>FL<br>CA  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup>   | 1<br>9<br>12<br>5<br>19   
   
  | 9                  | infection<br>Toxicity<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Blindness<br>Bacterial bloodstream<br>infection  
   | Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination   | Sterile products         Oral 4-aminopyridine pills         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye   
  | Not reported Not reported Kullense Kull   | Not reported<br>TN<br>FL<br>CA<br>AL   
   | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup>   | 1<br>9<br>12<br>5<br>19   
   
  | 9                  | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Blindness<br>Bacterial bloodstream<br>infection  
   | Dose of<br>4-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Unintended<br>presence of another<br>medication<br>Contamination<br>Dose of sodium 60<br>times stronger than  | Sterile products         Oral 4-aminopyridine pills         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye         Injectable bevacizumab for administration in the eye         Parenteral nutrition solution   
  | Not reported Not reported Kullense Kull   | Not reported<br>TN<br>FL<br>CA<br>AL   
   | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2010 <sup>59</sup><br>2010 <sup>60</sup>   | 1<br>9<br>12<br>5<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1  
   
  | 1                  | infection infect  | <ul> <li>Dose of 4-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Unknown</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> </ul>   
  | Sterile products Coral 4-aminopyridine pills Coral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Parenteral nutrition solution Parenteral nutrition solution Coral liothyronine (T3) Injectable hydromorphone Oral levothyroxine pills Injectable preservative-  
  | Not reported<br>Not reported<br>FL<br>CA<br>Not reported<br>AZ<br>TN<br>NC   | Not reported<br>TN<br>FL<br>CA<br>AL<br>IL<br>Not reported<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2010 <sup>59</sup>   | 1<br>9<br>12<br>5<br>19<br>1<br>1<br>1<br>1   
   
  | 1                  | infection<br>Toxicity<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Blindness<br>Bacterial bloodstream<br>infection<br>Fatal overdose<br>Unspecified side<br>effects   
   | <ul> <li>Dose of 4-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Quinitended presence of another medication</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> <li>Dose of baclofen 7 percent of ordered</li> </ul>  | Sterile products Sterile products Oral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Parenteral nutrition solution Parenteral nutrition solution Oral liothyronine (T3) Injectable hydromorphone Oral levothyroxine pills  
  | Not reported<br>Not reported<br>FL<br>Not reported<br>Not reported<br>AZ<br>TN   | Not reported<br>TN<br>FL<br>AL<br>AL<br>IL<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup>   | 1<br>9<br>12<br>5<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   
   
  | 1                  | infection Infect  | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Dose of another<br>medication<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of liothyronine<br>10 times stronger<br>than ordered<br>Dose of levothyroxine<br>18 times stronger<br>than ordered  
  | Sterile products         Sterile products         Oral 4-aminopyridine pills         Injectable bevacizumab for<br>administration in the eye         Oral liothyronine (T3)         Oral liothyronine (T3)         Injectable hydromorphone         Oral levothyroxine pills         Injectable preservative-<br>free hyaluronidas for<br>administration in the eye  
  | Not reported<br>Not reported<br>FL<br>Not reported<br>Not reported<br>AZ<br>AZ<br>TN<br>NC   | Not reported<br>TN<br>FL<br>CA<br>AL<br>IL<br>Not reported<br>Not reported<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.<br>Patients developed orbital cellulitis,<br>a type of infection that results in<br>inflammation of the eye.<br>The product included a fraction of the<br>intended dose of baclofen. Patient<br>experienced frequent and severe<br>spasms.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma, and   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2010 <sup>59</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>63</sup>   | 1<br>9<br>12<br>5<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  
   
  | 1                  | infection Infect  | Dose of 4-aminopyridine 10 times stronger than labeled concentration         Contamination         Contamination         presence of another medication         Contamination         Dose of sodium 60 times stronger than ordered         Dose of liothyronine 10 times stronger than ordered         Dose of liothyronine 10 times stronger than ordered         Dose of liothyronine 10 times stronger than ordered         Dose of levothyroxine 18 times stronger than ordered         Dose of loothyronine 10 times stronger than ordered         Dose of loothyronine 10 times stronger than ordered         Dose of levothyroxine 18 times stronger than ordered         Dose of baclofen 7 percent of ordered dosage         Dose of sodium coloride 10 times   
  | Sterile products  Sterile products  Oral 4-aminopyridine pills  Injectable bevacizumab for administration in the eyee  Injectable bevacizumab for administration in the eyee  Parenteral nutrition solution  Parenteral nutrition solution  Oral liothyronine (T3)  Injectable preservative- free hyaluronidase for administration in the eyee  Injectable preservative- free hyaluronidase for administration in the eyee  Injectable baclofen for administration in the eyee   
  | Not reported<br>FL<br>AZ<br>AZ<br>AZ<br>AZ<br>AZ<br>AZ<br>AZ<br>AZ<br>AZ   | Not reported<br>TN<br>FL<br>CA<br>AL<br>AL<br>Not reported<br>Not reported<br>Not reported<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and fluid<br>network that is not intended for<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.<br>Patients developed orbital cellulitis,<br>a type of infection that results in<br>inflammation of the eye.<br>The product included a fraction of the<br>intended dose of baclofen. Patient<br>experienced frequent and severe<br>spasms.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retentin to seizures and com, and<br>affect multiple organs including lungs<br>and kidneys.  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>57</sup><br>2011 <sup>57</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup><br>2009 <sup>63</sup>   | 1<br>9<br>12<br>5<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   
   
  | 1                  | infection<br>Toxicity<br>Dacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Blindness<br>Bacterial bloodstream<br>infection<br>fatal overdose<br>fatal overdose<br>Cunspecified side<br>effects<br>fatal overdose<br>fatal overdose<br>fatal overdose<br>fatal overdose<br>fatal overdose  
   | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of liothyronine<br>10 times stronger<br>than ordered<br>Dose of levothyroxine<br>18 times stronger<br>than ordered<br>Dose of baclofen 7<br>percent of ordered<br>dosage<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered  | Sterile products<br>Sterile products<br>Oral 4-aminopyridine pills<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Parenteral nutrition solution<br>Parenteral nutrition solution<br>Oral liothyronine (T3)<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the eyel<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the eyel<br>Injectable baclofen for<br>administration in the spine<br>Colistimethate sodium  
  | Not reported<br>Not reported<br>FL<br>Not reported<br>AZ<br>AZ<br>Not reported<br>Not reported<br>Not reported   | Not reported<br>TN<br>FL<br>CA<br>AL<br>IL<br>Not reported<br>Not reported<br>Not reported<br>Not reported  
  | Adverse events resulted from the use         of bulk saline bags for IV flushes in a         physician office practice.         Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.         Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.         Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.         Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.         Patients developed orbital cellulitis,<br>a type of infection that results in<br>inflammation of the eye.         The product included a fraction of the<br>interned dose of baclofen. Patient<br>experienced frequent and severe<br>spasms.         Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma, and<br>affect multiple organs including lungs<br>and kidneys.         Seven months after receiving<br>mesothepa pipesistent, immune-<br>mediated inflammatory reaction.         The prodrug of colistin is better<br>towhich it converts. More than half<br>of the prodrug is converted within   |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup><br>2009 <sup>63</sup><br>2008 <sup>64</sup>   | 1<br>9<br>12<br>5<br>19<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   
   
  |                    | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>removals<br>Bacterial bloodstream<br>infection<br>Bacterial bloodstream<br>infection<br>fatal overdose<br>fatal overdose<br>Cye infection; at least<br>one case of vision loss<br>fatal overdose<br>fatal overdose<br>fatal overdose<br>fatal overdose   
   | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of levothyroxine<br>10 times stronger<br>than ordered<br>Dose of levothyroxine<br>18 times stronger<br>than ordered<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered<br>Colistime thate<br>sodium left in<br>solution longer than<br>recommended   | Sterile products<br>Sterile products<br>Oral 4-aminopyridine pills<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Parenteral nutrition solution<br>Parenteral nutrition solution<br>Oral liothyronine (T3)<br>Oral liothyronine (T3)<br>Injectable hydromorphone<br>Oral levothyroxine pills<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the eyen<br>Injectable baclofen for<br>administration in the spine<br>Mesotherapy injections   
  | Not reported<br>FL<br>Not reported<br>CA<br>Not reported<br>AZ<br>AZ<br>AZ<br>NC<br>SNC  | Not reported<br>FL<br>CA<br>AL<br>AL<br>Not reported<br>Not reported<br>Not reported<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.         Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.         Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.         Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.         Liothyronine overlose can result in<br>shakiness, increased heart rate, and<br>palpitations.         Patients developed orbital cellulitis,<br>a type of infection that results in<br>inflammation of the eye.         The product included a fraction of the<br>intended dose of baclofen. Patient<br>experienced frequent and severe<br>spasms.         Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma, and<br>affect multiple organs including lungs<br>and kidneys.         Seven months after receiving<br>mesotherapy injections, patient<br>developed a persistent immune-<br>mediated inflammatory reaction.         The prodrug of colistin is better<br>tolerated than the active drug to<br>which it converts. More than half<br>of the odays in solution at a certain<br>temperature. This premixed product<br>was in solution for five weeks before<br>further diution for five weeks before<br>further diution for five weeks before<br>further diution for administration.  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>63</sup><br>2009 <sup>63</sup><br>2008 <sup>64</sup><br>2008 <sup>65</sup>   | 1<br>9<br>12<br>5<br>19<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  
   
  |                    | <ul> <li>infection</li> <li>Toxicity</li> <li>Bacterial eye infection,<br/>and one case of<br/>meningitis and<br/>encephaliti; our cases<br/>of loss of eyesight</li> <li>Bacterial eye infection;<br/>and one case of<br/>infection</li> <li>Bacterial bloodstream</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Eye infection; at least<br/>one case of vision loss</li> <li>Acute withdrawal</li> <li>Fatal overdose</li> </ul>   | <ul> <li>Dose of A-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Presence of another medication</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> <li>Dose of baclofen 7 percent of ordered dosage</li> <li>Colistimethate sodium left in solution longer than recommended</li> <li>Colistimethate sodium left in solution longer than stronger than
ordered</li> <li>Solution longer than concentration</li> </ul>  | Sterile products<br>Sterile products<br>Oral 4-aminopyridine pills<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Parenteral nutrition solution<br>Parenteral nutrition solution<br>Injectable sodium chloride<br>Oral liothyronine (T3)<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the eye<br>Injectable baclofen for<br>administration in the eyen<br>Injectable sodium chloride<br>Aussotherapy injections<br>Colistimethate sodium<br>inhaled solution   
  | Not reported<br>FL<br>CA<br>ICA<br>ICA<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC<br>IC   | Not reported<br>FL<br>CA<br>CA<br>AL<br>IL<br>Not reported<br>Not reported<br>Not reported<br>Not reported<br>Not reported  
  | Adverse events resulted from the use<br>of bulk saline bags for IV flushes in a<br>physician office practice.<br>Patient experienced stomach pain,<br>anxiety, extreme sweating, and<br>slow heart rate prior to developing<br>life-threatening seizures. Following a<br>complicated hospital stay, the patient<br>sustained permanent short-term<br>memory loss.<br>Trace amounts of bortezamib, a<br>cancer drug that is not intended for<br>injection into the eye, were detected<br>on a sample syringe.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affecting multiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>retention to seizures and coma,<br>affect ing nultiple organs including<br>lungs and kidneys. The patient<br>was exposed to a potent sodium-<br>containing fluid that was entered<br>incorrectly during the preparation of<br>the medication, resulting in death.<br>Liothyronine overdose can result in<br>shakiness, increased heart rate, and<br>palpitations.<br>Acute sodium overload can cause<br>symptoms ranging from fluid<br>affect multiple organs including lungs<br>and kidneys.<br>Seven months after receiving<br>mesotherapy injections, patient<br>developed a persistent immune-<br>mediated inflammatory reaction.<br>The product is. Converted within<br>two days in solution at a certain<br>temperianced frequent and severe<br>spasms.  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>57</sup><br>2011 <sup>58</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup><br>2009 <sup>63</sup><br>2008 <sup>64</sup><br>2008 <sup>65</sup>   | 1<br>9<br>12<br>5<br>19<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1   
   
  |                    | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningitis and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>Bacterial bloodstream<br>infection<br>Fatal overdose<br>Fatal overdose<br>Curspecified side<br>effects<br>Fatal overdose<br>Curse of vision loss<br>Accute withdrawal<br>Cute withdrawal<br>fatal overdose<br>fatal overdose<br>fatal overdose<br>fatal overdose<br>Curse of vision loss<br>fatal overdose<br>fatal overdose   | A-aminopyridine 10<br>limes stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Unintended<br>presence of another<br>medication<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of levothyroxine<br>10 times stronger<br>than ordered<br>Dose of levothyroxine<br>18 times stronger<br>than ordered<br>Dose of baclofen 7<br>percent of ordered<br>dosage<br>Dose of sodium<br>chloride 10 times<br>stronger
than<br>ordered<br>Dose of sodium<br>latimes stronger<br>than labeled<br>concentration   | Sterile products         Sterile products         Oral 4-aminopyridine pills         Injectable bevacizumab for<br>administration in the eye         Injectable bevacizumab for<br>administration in the eye         Parenteral nutrition solution         Injectable sodium chloride         Oral liothyronine (T3)         Injectable preservative-<br>free hyaluronidase for<br>administration in the eye         Injectable sodium chloride         Injectable baclofen for<br>administration in the eye         Injectable sodium chloridase for<br>administration in the eye         Injectable sodium chloridase for<br>administration in the eye         Colistimethate sodium<br>inhaled solution  
   | Not reported<br>FL<br>CA<br>Not reported<br>Not reported<br>AZ<br>AZ<br>Not reported<br>Not reported<br>Not reported   | Not reported<br>FL<br>CA<br>AL<br>AL<br>IL<br>Not reported<br>Not reported<br>Not reported<br>Not reported<br>Not reported   
   | Adverse events resulted from the use of bulk saline bags for IV flushes in a physician office practice.         Patient experienced stomach pain, anxiety, extreme sweating, and slow heart rate prior to developing diffe-threatening seizures. Following a complicated hospital stay, the patient sustained permanent short-term memory loss.         Trace amounts of bortezamib, a cancer drug that is not intended for injection into the eye, were detected on a sample syringe.         Acute sodium overload can cause symptoms ranging from fluid retention to seizures and coma, affecting multiple organs including lungs and kidneys. The patient was exposed to a potent sodium-containing fluid that was entered incorrectly during the preparation of the medication, resulting in death.         Liothyronine overload can cause symptoms ranging from fluid retented frequent and severe spasms.         Acute sodium overload can cause symptoms ranging in death.         Liothyronine overdose can result in inflammation of the eye.         The product included a fraction of the intended dose of bactofen. Patient experienced frequent and severe spasms.         Acute sodium overload can cause symptoms ranging from fluid retention to seizures and come and affect multiple organs including lungs and kidneys.         Seven months after receiving mesotherapy injections, patient tolerated than the active drug to which it prodrug is colion at a certain tew as in solution at a certain two as in solution at a certain two as in solution for admainstration.         The prodrug of colistin is better tolerated than the active drug to which it prover is. Konver tha whilfin of the doses were eightfold these limits.         Seven months after rece  |
| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>56</sup><br>2011 <sup>57</sup><br>2010 <sup>59</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup><br>2009 <sup>63</sup><br>2003 <sup>64</sup><br>2003 <sup>65</sup><br>2007 <sup>67</sup>   | 1<br>9<br>12<br>5<br>19<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  
   
  |                    | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningits and<br>encephaliti; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>Bacterial bloodstream<br>fatal overdose<br>fatal overdose<br>Consection; at least<br>cone case of vision loss<br>fatal overdose<br>fatal overdose  | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of levothyroxine<br>10 times stronger<br>than ordered<br>Dose of baclofen 7<br>ercent of ordered<br>Dose of baclofen 7<br>percent of ordered<br>Contamination<br>Colistimethate<br>sodium left in<br>solution longer than<br>ordered<br>Dose of colchicine<br>eight times stronger<br>than labeled<br>concentration<br>Contamination  
  | Sterile products<br>Sterile products<br>Oral 4-aminopyridine pills<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Parenteral nutrition solution<br>Injectable sodium chloride<br>Oral liothyronine (T3)<br>Oral levothyroxine pills<br>Injectable preservative-<br>fadministration in the eye<br>Injectable baclofen for<br>administration in the eye<br>Injectable sodium chloride<br>Injectable sodium chloride  
  | <ul> <li>Not reported</li> <li>Not reported</li> <li>FL</li> <li>Not reported</li> <li>AZ</li> <li>AZ</li> <li>TN</li> <li>NC</li> <li>FL</li> <li>Not reported</li> <li>Not reported</li> <li>Not reported</li> <li>Not reported</li> </ul>   | Not reported<br>TN<br>FL<br>CA<br>AL<br>AL<br>IL<br>Not reported<br>Not reported<br>Not reported<br>Not reported<br>Not reported  
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| 12 <sup>53</sup><br>2011 <sup>54</sup><br>2011 <sup>55</sup><br>2011 <sup>57</sup><br>2011 <sup>57</sup><br>2010 <sup>59</sup><br>2009 <sup>61</sup><br>2009 <sup>62</sup><br>2009 <sup>63</sup><br>2008 <sup>66</sup><br>2008 <sup>66</sup>   | 1<br>9<br>12<br>5<br>19<br>19<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  
   
  |                    | infection<br>Toxicity<br>Bacterial eye infection,<br>and one case of<br>meningits and<br>encephalitis; four cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>Bacterial bloodstream<br>infection and<br>Fatal overdose<br>Consectified side<br>Cate withdrawal<br>Cate withdrawal<br>Cate withdrawal<br>Fatal overdose<br>Cate of vision loss<br>Cate of   | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of levothyronine<br>10 times stronger<br>than ordered<br>Dose of levothyroxine<br>18 times stronger<br>than ordered<br>Dose of baclofen 7<br>percent of ordered<br>dosage<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered<br>Colistimethate<br>sodium left in<br>solution longer than<br>ordered<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of<br>concentration<br>Contamination   
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  |                    | infection<br>Toxicity<br>Bacterial eye infection;<br>and one case of<br>encephaliti; our cases<br>of loss of eyesight<br>Bacterial eye infection;<br>three patients had eye<br>Bacterial bloodstream<br>infection<br>Fatal overdose<br>Cunspecified side<br>effects<br>Cunspecified side<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>fatal overdose<br>Cunspecified side<br>fatal overdose<br>fatal overdose   | A-aminopyridine 10<br>times stronger than<br>labeled concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Dose of sodium 60<br>times stronger than<br>ordered<br>Dose of liothyronine<br>10 times stronger<br>than ordered<br>Dose of loothyroxine<br>10 times stronger<br>than ordered<br>Dose of baclofen 7<br>percent of ordered<br>dosage<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered<br>Dose of sodium<br>chloride 10 times<br>stronger than<br>ordered<br>Dose of colchicine<br>eight times stronger<br>than
labeled<br>concentration<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination<br>Contamination   | Sterile products<br>Sterile products<br>Cral 4-aminopyridine pills<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable bevacizumab for<br>administration in the eye<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the spine<br>Injectable preservative-<br>free hyaluronidase for<br>administration in the spine<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable sodium chloride<br>Injectable sodium chloride  
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12 <sup>53</sup> 2011 <sup>54</sup> 2011 <sup>55</sup> 2011 <sup>57</sup> 2011 <sup>57</sup> 2010 <sup>59</sup> 2009 <sup>61</sup> 2009 <sup>62</sup> 2009 <sup>63</sup> 2008 <sup>66</sup> 2008 <sup>66</sup> 2007 <sup>67</sup> 2007 <sup>67</sup>	<ul> <li>1</li> <li>9</li> <li>12</li> <li>19</li> <li>19</li> <li>19</li> <li>19</li> <li>1</li> &lt;</ul>		<ul> <li>infection</li> <li>Toxicity</li> <li>Bacterial eye infection, and one case of meningitis and encephalicits; four cases of loss of eyesight</li> <li>Batterial eye infection; three patients had eye removals</li> <li>Baindness</li> <li>Bacterial bloodstream</li> <li>Fatal overdose</li> <li>Secterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>GonSciousness, low blood pressure, and consciousness, low</li> <li>Bacterial overdose</li> <li>Secterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Fatal overdose</li> <li>Bacterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Gaterial bloodstream</li> <li>Fatal overdose</li> <li>Bacterial bloodstream</li> <li>Gaterial bloodstream<td><ul> <li>A-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> <li>Dose of baclofen 7 percent of ordered ordered</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of sodium chloride 10 times tronger than ordered</li> <li>Dose of colchicine eight times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Betamethasone made with incorrect anount of sodium chloride</li> <li>Dose of zinc 1,000 times ordered</li> <li>Dose of zinc 1,000 times ordered</li> </ul></td><td>Sterile products Cral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Injectable sodium chloride Injectable sodium chloride Injectable preservativer free hyapurosiryase for administration in the spine Injectable baclofen for administration in the spine Injectable sodium chloride Injectable sodium chl</td><td>Not reported           Not reported           FL           CA           Not reported           AZ           NC           NC           NC           Not reported           Not reported</td><td>Not reported TN FL CA AL AL IL Not reported Not reported Not reported Not reported Not reported CO Not reported</td><td>Adverse events resulted from the use of bulk saline bags for IV flushes in a physician office practice.         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An i</td></li></ul>	<ul> <li>A-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger than ordered</li> <li>Dose of baclofen 7 percent of ordered ordered</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of sodium chloride 10 times tronger than ordered</li> <li>Dose of colchicine eight times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Betamethasone made with incorrect anount of sodium chloride</li> <li>Dose of zinc 1,000 times ordered</li> <li>Dose of zinc 1,000 times ordered</li> </ul>	Sterile products Cral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Injectable sodium chloride Injectable sodium chloride Injectable preservativer free hyapurosiryase for administration in the spine Injectable baclofen for administration in the spine Injectable sodium chloride Injectable sodium chl	Not reported           Not reported           FL           CA           Not reported           AZ           NC           NC           NC           Not reported	Not reported TN FL CA AL AL IL Not reported Not reported Not reported Not reported Not reported CO Not reported	Adverse events resulted from the use of bulk saline bags for IV flushes in a physician office practice.         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Image: Ima</td></li<></ul>		<ul> <li>infection</li> <li>Toxicity</li> <li>Bacterial eye infection, and one case of meningitis and encodes of loss of eye sight?</li> <li>Bacterial eye infection; at least of hree patients had eye infection</li> <li>Bacterial bloodstream</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Eye infection; at least of eye sight?</li> <li>Fatal overdose</li> <li>Eye infection; at least of eye sight?</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Gacterial bloodstream</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Fatal overdose</li> <li>Gacterial bloodstream</li> <li>Gacterial bloodstream</li> <li>Gacterial bloodstream</li> <li>Gonsciousness, low blood pressure, and ellulitis</li> <li>Fatal overdose</li> <li>Sevendo eye source, and ellulities</li> <li>Fatal overdose</li> <li>Sevendo eye source, and ellulities</li> <li>Fatal overdose</li> </ul>	<ul> <li>A-aminopyridine 10 times stronger than labeled concentration</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60 times stronger than ordered</li> <li>Dose of liothyronine 10 times stronger than ordered</li> <li>Dose of levothyroxine 18 times stronger</li> <li>Dose of baclofen 7 percent of ordered dosage</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of sodium la times stronger</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of sodium chloride 10 times stronger than ordered</li> <li>Dose of colchicine eight time labeled dosage</li> <li>Contamination</li> <li>Contamination</li> <li>Betamethasone made with incorrect anount of sodium chloride</li> <li>Dose of zinc 1,000</li> <li>Tose of zinc 1,000</li> </ul>	Sterile products Sterile products Cral 4-aminopyridine pills Injectable bevacizumab for administration in the eye Injectable bevacizumab for administration in the eye Parenteral nutrition solution Injectable sodium chloride Oral liothyronine (T3) Injectable preservative- free hyaluronidase for administration in the eye Injectable preservative- free hyaluronidase for administration in the eye Injectable berearetative- free hyaluronidase for administration in the eye Injectable berearetative free hyaluronidase for administration in the eye Injectable berearetative free hyaluronidase for administration in the eye Injectable berearetative free hyaluronidase for administration in the eye Injectable berearetative inhaled solution	Not reported           Not reported           FL           CA           Not reported           AZ           AZ           NC           NC           NC           NC           NC           National	Not reportedTNFLCAALILILNot reportedNot reportedNot reportedNot reportedCOStateCOCACAAZAZ	Adverse events resulted from the use of bulk saline bags for IV flushes in a physician office practice.         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Patient experienced stomach pain, anxiety, extreme sweating, and slow heart rate prior to developing life-threatening seizures. Following a complicated hospital stay, the patient sustained permanent short-term memory loss.         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  | <ul> <li>A-aminopyridine 10</li> <li>Lonose of Jaconcentration</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Contamination</li> <li>Dose of sodium 60</li> <li>Contamination</li> <li>Dose of liothyronine<br/>10 times stronger</li> <li>Dose of levothyroxine<br/>18 times stronger</li> <li>Conse of sodium 60</li> <li>Conse of sodium 60</li> <li>Contamination</li> <li>Conse of sodium 60</li> <li>Contamination</li> <li>Contamination</li></ul>  
   | Sterile products           Sterile products           Qral 4-aminopyridine pills           Injectable bevacizumab for<br>administration in the eye           Oral liothyronine (T3)           Injectable preservative-<br>free hyaluronidaes for<br>administration in the spine           Injectable becolefine for<br>administration in the spine           Injectable becoleficine           Injectable becoleficine           Injectable betramethasone           Injectable heparinteraal<br>nutrition solution           Injectable heparinized salime           Injectable heparini   | .             
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   | Sterile products           Sterile products           Oral 4-aminopyridine pills           Injectable bevacizumab for<br>administration in the eye           Injectable bevacizumab for<br>administration in the eye           Injectable bevacizumab for<br>administration in the eye           Injectable bevacizumab for<br>administration in the eyed           Oral loutyronine (T3)           Injectable preservative-<br>free hyaluronidase for<br>administration in the eyed           Injectable baclofen for<br>administration in the eyed           Injectable baclofen for<br>administration in the eyed           Injectable sodium chloride           Amesotherapy injections           Injectable sodium chloride           Injectable sodium chloride           Injectable colchicine           Injectable colchicine           Injectable colchicine           Injectable betamethasone           Injectable betamethasone           Injectable betamethasone           Injectable magnesium<br>sulfate           Injectable magnesium<br>sulfate           Injectable magnesium<br>sulfate           Injectable magnesium<br>sulfate           Injectable magnesium<br>sulfate  
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7<br/>than ordered</li> <li>Dose of sodium 60<br/>times stronger than<br/>ordered</li> <li>Dose of sodium 60<br/>times stronger</li> <li>Dose of sodium 60<br/>times stronger</li> <li>Dose of sodium 60<br/>times stronger</li> <li>Dose of colchicine<br/>stronger than<br/>ordered</li> <li>Contamination</li> <li>C</li></ul>   | Sterile products           Sterile products           Coral 4-aminopyridine pills           injectable bevacizumab for<br>administration in the eye           Injectable bevacizumab for<br>administration in the eye           Injectable bevacizumab for<br>administration in the eye           Injectable boaling control           Injectable boaling control           Injectable proservative-<br>free hyaluronidase for<br>administration in the eye           Injectable proservative-<br>free hyaluronidase for<br>administration in the eye           Injectable baciofen for<br>administration in the eye           Injectable baciofen for<br>administration in the eye           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In the total, "several" reported cases were counted as two adverse events, and an "unknown" number of reported cases were counted as zero adverse events.

## **Endnotes**

- The Pew Charitable Trusts, "National Assessment of State Oversight of Sterile Drug Compounding" (2016), http://www.pewtrusts.org/~/media/assets/2016/02/national\_assessment\_of\_state\_ oversight\_of\_sterile\_drug\_compounding.pdf.
- 2 A. Coukell, "Risks of Compounded Drugs," JAMA Internal Medicine 174, no. 4 (2014): 613-14, http:// jamanetwork.com/journals/jamainternalmedicine/fullarticle/1819570; M.F. Farooqi et al., "Toxicity From a Clonidine Suspension," The Journal of Medical Toxicology 5, no. 3 (2009): 130-33, https:// link.springer.com/article/10.1007%2FBF03161223; R.W. Moehring et al., "Outbreak of Bacteremia Due to Burkholderia contaminans Linked to Intravenous Fentanyl From an Institutional Compounding Pharmacy," JAMA Internal Medicine 174, no. 4 (2014): 606-12, http://dx.doi.org/10.1001/ jamainternmed.2013.13768.
- 3 U.S. Food and Drug Administration, "FDA Highlights Concerns With Using Dietary Ingredient Glutathione to Compound Sterile Injectables," accessed June 20, 2019, https://www.fda.gov/drugs/ human-drug-compounding/fda-highlights-concerns-using-dietary-ingredient-glutathione-compoundsterile-injectables
- 4 U.S. Food and Drug Administration, "FDA Alerts Health Care Professionals of Significant Safety Risks Associated With Cesium Chloride," July 23, 2018, https://www.fda.gov/drugs/human-drugcompounding/fda-alerts-health-care-professionals-significant-safety-risks-associated-cesiumchloride

com/2017/06/26/us/pharmacy-meningitis-deaths-steroids-crisis.html.

- 46 Centers for Disease Control and Prevention, "Multistate Outbreak of Fungal Meningitis and Other Infections-Case Count," accessed Dec. 21, 2016, http://www.cdc.gov/hai/outbreaks/meningitis-maplarge.html. This webpage has not been updated since 2015, and thus does not reflect the current total adverse event count.
- 47 U.S. Food and Drug Administration, "Multistate Outbreak of Fungal Meningitis and Other Infections -Archive of Updates," accessed May 1, 2017, https://www.fda.gov/drugs/drugsafety/fungalmeningitis/ ucm325037.htm
- 48 C.A. Mikosz et al., "Fungal Endophthalmitis Associated With Compounded Products," Emerging Infectious Diseases 20, no. 2 (2014): 248-56, http://dx.doi.org/10.3201/eid2002.131257.
- 49 Moehring et al., "Outbreak of Bacteremia."
- 50 G. Wang et al., "Flecainide Toxicity in a Pediatric Patient Due to Differences in Pharmacy Compounding," International Journal of Cardiology 161, no. 3 (2012): 178-79, http://dx.doi.org/10.1016/j. ijcard.2012.06.028. This source was published in 2012; information was not available about the timing of the adverse event.
- 51 Centers for Disease Control and Prevention, "Invasive Staphylococcus aureus Infections Associated With Pain Injections and Reuse of Single-Dose Vials - Arizona and Delaware, 2012," Morbidity and
- 5 U.S. Food and Drug Administration, "Pacifico National, Inc. dba AmEx Pharmacy 483 Report," June 20, 2019, https://www.fda.gov/media/128709/download.
- 6 U.S. Food and Drug Administration, "Statement on Improving Adverse Event Reporting of Compounded Drugs to Protect Patients," Sept. 9, 2019, https://www.fda.gov/news-events/press-announcements/ statement-improving-adverse-event-reporting-compounded-drugs-protect-patients; J. Dohm, J. Kim, and J. Woodcock, "Improving Adverse Event Reporting for Compounded Drugs," JAMA Internal Medicine 179, no. 11 (2019): 1461-62, https://doi.org/10.1001/jamainternmed.2019.3830.
- The business that was inspected by FDA, BioTE, obtained its products from two outsourcing facilities 7 that were identified by the agency. One is located in Texas, the other in Florida. U.S. Food and Drug Administration, "FDA's Investigation Into Guardian's Compounded 8
- Triamcinolone-Moxifloxacin Drug Product," accessed Dec. 4, 2018, https://www.fda.gov/Drugs/ GuidanceComplianceRegulatoryInformation/PharmacyCompounding/ucm610716.htm. U.S. Food and Drug Administration, "FDA Alerts Health Care Professionals of Adverse Events 9 Associated With Guardian's Compounded Triamcinolone and Moxifloxacin Product for Intravitreal
- Injection," accessed Dec. 4, 2018, https://www.fda.gov/Drugs/DrugSafety/ucm569114.htm. 10 U.S. Food and Drug Administration, "FDA Investigates Two Serious Adverse Events Associated With ImprimisRx's Compounded Curcumin Emulsion Product for Injection," accessed Dec. 4, 2018, https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/PharmacyCompounding/ ucm570192.htm.
- 11 K. Ross et al., "Outbreak of Septic Arthritis Associated With Intra-Articular Injections at an Outpatient Practice — New Jersey, 2017," Morbidity and Mortality Weekly Report 66, no. 29 (2017): 777-779, http:// dx.doi.org/10.15585/mmwr.mm6629a3.
- 12 U.S. Food and Drug Administration, "A Case of Hemorrhagic Occlusive Retinal Vasculitis (HORV) Following Intraocular Injections of a Compounded Triamcinolone, Moxifloxacin, and Vancomycin Formulation," accessed Nov. 14, 2017, https://www.fda.gov/Drugs/ GuidanceComplianceRegulatoryInformation/PharmacyCompounding/ucm578514.htm.
- 13 U.S. Food and Drug Administration, "FDA Investigates Two Adverse Events Associated With United Pharmacy's Compounded Glutamine, Arginine, and Carnitine Product for Injection," accessed Nov. 14, 2017, https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/ PharmacyCompounding/ucm584125.htm.
- 14 A. Vasquez et al., "Notes From the Field: Fungal Bloodstream Infections Associated With a Compounded Intravenous Medication at an Outpatient Oncology Clinic—New York City, 2016," Morbidity and Mortality Weekly Report 65, no. 45 (2016): 1274-75, http://www.cdc.gov/mmwr/ volumes/65/wr/mm6545a6.htm?s\_cid=mm6545a6\_w.
- 15 E. Hines et al., "Massive Intravenous Manganese Overdose Due to Compounding Error: Minimal Role for Hemodialysis," Clinical Toxicology 54, no. 6 (2016): 523–25, http://dx.doi.org/10.1080/15563650.2 016.1178390. This source was published in 2016; information was not available about the timing of the adverse event.
- 16 U.S. Food and Drug Administration, "FDA Announces Pharmakon Pharmaceuticals' Nationwide Voluntary Recall of Purportedly Sterile Drug Products," accessed Dec. 4, 2018, https://www.fda.gov/ Drugs/DrugSafety/ucm496346.htm.
- 17 U.S. Department of Justice, "Former CEO Convicted of Defrauding Food and Drug Administration and Distributing Adulterated Drugs," accessed May 6, 2019, https://www.justice.gov/opa/pr/former-ceoconvicted-defrauding-food-and-drug-administration-and-distributing-adulterated.The drug product was distributed to Illinois and Indiana; information was not available about where
- 18 adverse events occurred. 19 H.R. Simpson et al., "When Ignorance Is Not Bliss: Complications Associated With Homeopathic
- Injections From a Chiropractor," (paper presented at the annual conference for the Council for State and Territorial Epidemiologists, Boise, June 4-8, 2017), https://cste.confex.com/cste/2017/ webprogram/Paper8601.html.
- 20 J. Woodcock and J. Dohm, "Toward Better-Quality Compounded Drugs An Update From the FDA," The New England Journal of Medicine 377, no. 26 (2017): 2509-2512, http://dx.doi.org/10.1056/ NEJMp1712905 21 M.A. Foster et al., "Notes From the Field: Investigation of Hepatitis C Virus Transmission Associated
- With Injection Therapy for Chronic Pain California, 2015," Morbidity and Mortality Weekly Report 65, no. 21 (2016): 547-549, http://dx.doi.org/10.15585/mmwr/mm6521a4.
- 22 U.S. Food and Drug Administration, "Medisca Inc 11/25/15," accessed Jan. 22, 2018, https://www.fda. gov/ICECI/EnforcementActions/WarningLetters/2015/ucm474892.htm.
- 23 Woodcock and Dohm, "Toward Better-Quality Compounded Drugs." 24 U.S. Food and Drug Administration, "FDA Announces Glades Drugs' Nationwide Voluntary Recall of Compounded Multivitamins Containing High Amounts of Vitamin D<sub>2</sub> (Cholecalciferol)," accessed Feb.
- 17, 2017, http://www.fda.gov/drugs/drugsafety/ucm474552.htm. 25 The source explicitly states that the adverse events were potentially associated with the compounded drug product in question.
- 26 The drug product was distributed nationally; information was not available about where adverse events occurred.
- U.S. Food and Drug Administration, "FDA Announces Medistat RX's Nationwide Voluntary Recall of 27 Sterile Drug Products," accessed Dec. 4, 2018, https://www.fda.gov/Drugs/DrugSafety/ucm461810. htm
- 28 The source explicitly states that the adverse events were potentially associated with the compounded drug product in question.
- 29 The drug product was distributed nationally; information was not available about where adverse events occurred. 30 U.S. Food and Drug Administration, "Pharmakon Pharmaceuticals 5/21/15," accessed Dec. 12, 2016,
- http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2015/ucm448642.htm. K. Krause, "Potent Pain Creams That Sold for Up to \$28K Caused Deaths, Cost Government Millions," 31 Dallas News, Nov. 12, 2017, https://www.dallasnews.com/news/crime/2017/11/12/potent-pain-
- creams-sold-25k-caused-deaths-cost-government-millions. 32 U.S. Food and Drug Administration, "Eastern Pharmacy, Inc. 10/29/14," accessed Jan. 22, 2018, https://
- www.fda.gov/ICECI/EnforcementActions/WarningLetters/ucm423249.htm. 33 Woodcock and Dohm, "Toward Better-Quality Compounded Drugs."
- 34 U.S. Food and Drug Administration, "Walgreens Infusion Services 8/27/15," accessed Jan. 8, 2018, https://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2015/ucm473497.htm.
- 35 U.S. Food and Drug Administration, "FDA Announces Voluntary Nationwide Recall of All Non-Expired Sterile Drugs From Abrams Royal Compounding Pharmacy," accessed Dec. 4, 2018, https:// wayback.archive-it.org/7993/20170111160949/http://www.fda.gov/NewsEvents/Newsroom/ PressAnnouncements/ucm379634.htm.
- 36 U.S. Food and Drug Administration, "FDA Announces Nationwide Voluntary Recall of All Products for Sterile Use From Specialty Compounding," accessed Dec. 4, 2018, https://wayback.archive-it. org/7993/20170112025131/http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ ucm364644.htm.
- 37 The source explicitly states that it is unclear whether the reported deaths were related to the compounding error or potential error.
- 38 T. Sandle, "Sterile Products Produced by Downing Labs Recalled," Digital Journal, July 22, 2014, http://www.digitaljournal.com/life/health/sterile-products-produced-by-downinglabs-recalled/article/391739; U.S. Food and Drug Administration, "NuVision Pharmacy 483 Report," accessed Aug. 18, 2015, http://www.fda.gov/downloads/AboutFDA/CentersOffices/ OfficeofGlobalRegulatoryOperationsandPolicy/ORA/ORAElectronicReadingRoom/UCM348772.pdf..
- 39 U.S. Food and Drug Administration, Statement of Janet Woodcock, M.D., director, Center for Drug Evaluation and Research, before the Committee on Health, Education, Labor and Pensions, United States Senate, "Pharmaceutical Compounding: Proposed Legislative Solution," May 9, 2013, http:// www.help.senate.gov/imo/media/doc/Woodcock2.pdf; U.S. Food and Drug Administration, "FDA Alerts Health Care Providers and Patients of the Nationwide Recall of All Lots of Sterile Products Distributed by Clinical Specialties Compounding Pharmacy," accessed Dec. 4, 2018, https:// wayback.archive-it.org/7993/20170112024808/http://www.fda.gov/NewsEvents/Newsroom/ PressAnnouncements/ucm345019.htm; L.S. Edison et al., "Endophthalmitis Outbreak Associated With Repackaged Bevacizumab," Emerging Infectious Diseases 21, no. 1 (2015): 171-73, http://dx.doi. org/10.3201/eid2101.141040.
- 40 A. Sheyman et al., "An Outbreak of Fungal Endophthalmitis After Intravitreal Injection of Compounded Combined Bevacizumab and Triamcinolone," JAMA Ophthalmology 131, no. 7 (2013): 864-69, http:// dx.doi.org/10.1001/jamaophthalmol.2013.88. This source was published in 2013; information was not available about the timing of adverse events.
- B. Libby et al., "Multisystem Organ Failure Following LipoDissolve Injections," Clinical Toxicology 3, 41 no. 4 (2013): 171, http://dx.doi.org/10.4172/2161-0495.1000171. This source was published in 2013; information was not available about the timing of the adverse event.
- 42 B.R. Yablon et al., "Outbreak of Pantoea agglomerans Bloodstream Infections at an Oncology Clinic -Illinois, 2012-2013," Infection Control & Hospital Epidemiology 38, no. 3 (2017): 314-319, http://dx.doi. org/10.1017/ice.2016.265.
- 43 Centers for Disease Control and Prevention, "Multistate Investigation of Suspected Infections Following Steroid Injections," accessed Aug. 15, 2013, http://www.cdc.gov/hai/outbreaks/TN-pharmacy/index. html
- 44 U.S. Food and Drug Administration, "January 31, 2018: New England Compounding Center Pharmacist Sentenced for Role in Nationwide Fungal Meningitis Outbreak," accessed Dec. 5, 2018, https://www. fda.gov/ICECI/CriminalInvestigations/ucm594800.htm. Initially, the Centers for Disease Control and Prevention reported that 753 patients were harmed, and that 64 had died. FDA has since identified a total of 793 patients affected by this compounding error.
- 45 Ibid. Federal prosecutors identified a total of 76 deaths attributable to the outbreak in the subsequent criminal case against the pharmacy co-owner; J. Bidgood, "Pharmacist Gets 9-Year Prison Term in Deadly Meningitis Outbreak," The New York Times, June 26, 2017, https://www.nytimes.

## For further information, please visit:

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- Mortality Weekly Report 61, no. 27 (2012): 501-504, https://www.cdc.gov/mmwr/preview/mmwrhtml/ mm6127a1.htm. 52 Centers for Disease Control and Prevention, "Protect Patients Against Preventable Harm From
- Improper Use of Single-Dose/Single-Use Vials," accessed Jan. 22, 2018, https://www.cdc.gov/ injectionsafety/cdcposition-singleusevial.html. 53 I. See et al., "Outbreak of Tsukamurella Species Bloodstream Infection Among Patients at an Oncology
- Clinic, West Virginia, 2011-2012," Infection Control & Hospital Epidemiology 35, no. 3 (2014): 300-306, http://dx.doi.org/10.1086/675282. 54 E. Schwam, "Severe Accidental Overdose of 4-Aminopyridine Due to a Compounding Pharmacy
- Error," The Journal of Emergency Medicine 41, no. 1 (2011): 51-54, http://dx.doi.org/10.1016/j. jemermed.2009.04.037. This source was published in 2011; information was not available about the timing of the adverse event.
- 55 B.A. Frost and M.A. Kainer, "Safe Preparation and Administration of Intravitreal Bevacizumab Injections," The New England Journal of Medicine 365, no. 23 (2011): 2238, http://dx.doi.org/10.1056/ NEJMc1105759. This source was published in 2011; information was not available about the timing of adverse events.
- 56 R.A. Goldberg et al., "An Outbreak of Streptococcus Endophthalmitis After Intravitreal Injection of Bevacizumab," American Journal of Ophthalmology 153, no. 2 (2012): 204-8.e1, http://dx.doi. org/10.1016/j.ajo.2011.11.035.
- 57 Department of Veterans Affairs, Office of Inspector General, "Healthcare Inspection: Oversight Review of Ophthalmology Adverse Drug Events, VA Greater Los Angeles Healthcare System, Los Angeles, California," Report No. 12-01515-151 (2012), http://www.va.gov/oig/pubs/VAOIG-12-01515-151.pdf.
- 58 C.A. Thompson, "Bacteremia Outbreak Tied to Improper Filtration by Compounding Pharmacy," American Journal of Health-System Pharmacy 68, no. 22 (2011): 2110 and 2112, http://dx.doi. org/10.2146/news110075.
- 59 B. Vitello, "Lutheran General to Pay \$8.25 Million in Baby's Death," Daily Herald, April 5, 2012, http:// www.dailyherald.com/article/20120405/news/704059806.
- 60 Arizona State Board of Pharmacy v. Vicki Graves, "Consent Agreement for Civil Penalty and Continuing Education," Board Case No. 10-0061-PHR (May 14, 2010), https://pharmacy.az.gov/sites/default/files/ documents/files/10-0061.pdf.
- 61 U.S. Food and Drug Administration, "PharMEDium Services, LLC 483 Report," accessed Dec. 21, 2016. 62 North Carolina Board of Pharmacy, "Consent Order: In the Matter of Deep River Drug," accessed Dec. 12, 2016, http://www.ncbop.org/Disciplinary%20Actions%20-%20PHARMACIES/ DeepRiverDrug08944.pdf.
- ${\it 63} \quad {\it U.S.} \ {\it Food} \ {\it and} \ {\it Drug} \ {\it Administration}, \ {\it Responses} \ {\it for} \ the \ {\it record} \ {\it following} \ hearing \ {\it on} \ ``Pharmacy$ Compounding: Implications of the 2012 Meningitis Outbreak," United States Senate Committee on Health Education, Labor and Pensions, May 16, 2013.
- 64 D. Kanter et al., "Acute Baclofen Withdrawal in a Patient Receiving Compounded Intrathecal Baclofen: A Case Report," Archives of Physical Medicine and Rehabilitation 89 (2008): E123, accessed Dec. 12, 2016, http://www.archives-pmr.org/article/S0003-9993(08)01152-0/pdf. This source was published in 2008; information was not available about the timing of the adverse event.
- 65 North Carolina Board of Pharmacy, "Consent Order of Discipline: In the Matter of Jewel Freeman," accessed Dec. 12, 2016, http://www.ncbop.org/Disciplinary%20Actions%20-%20PHARMACISTS/ FreemanJewel10249.pdf.
- 66 J.E. Strahan, J.L. Cohen, and J.A. Chorny, "Granuloma Annulare as a Complication of Mesotherapy: A Case Report," Dermatologic Surgery 34, no. 6 (2008): 836-38, http://dx.doi.org/10.1111/j.1524-4725.2008.34156.x. This source was published in 2008; information was not available about the timing of the adverse event.
- 67 K. McCoy, "Compounded Colistimethate as Possible Cause of Fatal Acute Respiratory Distress Syndrome," The New England Journal of Medicine 357 (2007): 2310-11, http://dx.doi.org/10.1056/ nejmc071717. This source was published in 2007; information was not available about the timing of the adverse event.
- 68 Centers for Disease Control and Prevention, "Deaths From Intravenous Colchicine Resulting From a Compounding Pharmacy Error-Oregon and Washington, 2007," Morbidity and Mortality Weekly Report 56, no. 40 (2007): 1050-52, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5640a3.htm.
- 69 L.L. Maragakis et al., "Sphingomonas paucimobilis Bloodstream Infections Associated With Contaminated Intravenous Fentanyl," Emerging Infectious Diseases 15, no. 1 (2009): 12-18, http://dx.doi. org/10.3201/eid1501.081054.
- 70 U.S. Food and Drug Administration, "PharMEDium Services, LLC 13-Apr-07," accessed Dec. 5, 2018, https://www.fdalabelcompliance.com/letters/ucm076357.
- 71 U.S. Food and Drug Administration, "Med-South Pharmacy Inc. 28-Sep-07," accessed Dec. 5, 2018, https://www.fdalabelcompliance.com/letters/ucm076516; E. Greb, "FDA Censures Med-South Pharmacy for CGMP Violations," PharmTech.com, Oct. 18, 2007, http://www.pharmtech.com/fdacensures-med-south-pharmacy-cgmp-violations.
- 72 Institute for Safe Medication Practices, Medication Safety Alert, "Failed Check System for Chemotherapy Leads to Pharmacist's No Contest Plea for Involuntary Manslaughter," accessed Jan. 9, 2013, http://www.ismp.org/newsletters/acutecare/articles/20090423.asp
- 73 M. Grissinger, "A Fatal Zinc Overdose in a Neonate: Confusion of Micrograms With Milligrams," Pharmacy and Therapeutics 36, no. 7 (2011): 393-94, 409, http://www.ncbi.nlm.nih.gov/pmc/articles/ PMC3171817.
- 74 R. Paul, "Despite Court Ruling, FDA Still Warning Compounders," Drug Topics, Jan. 8, 2007, http://drugtopics.modernmedicine.com/drug-topics/content/despite-court-ruling-fda-still-warningcompounders; ABC News, "Death Prompts Calls for More Drug Scrutiny," April 21, 2005, http://abcnews.go.com/Primetime/Health/story?id=692826&page=1.
- 75 R. Sunenshine et al., "A Multistate Outbreak of Serratia marcescens Bloodstream Infection Associated With Contaminated Intravenous Magnesium Sulfate From a Compounding Pharmacy," Clinical Infectious Diseases, 45 (2007): 527-33, http://dx.doi.org/10.1086/520664; U.S. Food and Drug Administration, "PharMEDium Services, LLC 13-Apr-07 Warning Letter."
- 76 M.D. Gershman et al., "Multistate Outbreak of Pseudomonas fluorescens Bloodstream Infection After Exposure to Contaminated Heparinized Saline Flush Prepared by a Compounding Pharmacy," Clinical Infectious Diseases 47 (2008): 1372-79, http://dx.doi.org/10.1086/592968.
- 77 R. Sunenshine et al., "An Outbreak of Postoperative Gram-Negative Bacterial Endophthalmitis Associated With Contaminated Trypan Blue Ophthalmic Solution," Clinical Infectious Diseases 48 (2009): 1580-83, http://dx.doi.org/10.1086/598938.
- 78 A.S. Patel et al., "Outbreak of Systemic Inflammatory Response Syndrome Linked to a Compounding Pharmacy - Virginia, 2005" (poster presented at the 55th Annual Epidemic Intelligence Service Conference, 2006), http://www.cdc.gov/eis/downloads/2006.eis.conference.pdf; Maryland State Board of Pharmacy, "Order for Summary Suspension: In the Matter of Central Admixture Pharmacy Services, Inc.," accessed Jan. 9, 2013, http://www.dhmh.maryland.gov/pharmacy/docs/FormalOrders/ C/C.A.P.S%2011-15-05.pdf.
- 79 M.R. Held et al., "Life-Threatening Sepsis Caused by Burkholderia cepacia From Contaminated Intravenous Flush Solutions Prepared by a Compounding Pharmacy in Another State," Pediatrics 118, no. 1 (2006): e212-e215, http://pediatrics.aappublications.org/content/118/1/e212.long.
- 80 Arizona State Board of Pharmacy, "Amended Complaint and Notice of Hearing: In the Matter of Apothecary Shop of Phoenix, Inc.," accessed Dec. 22, 2016, https://pharmacy.az.gov/sites/default/ files/documents/files/03-0015%20B.pdf.
- 81 Paul, "Despite Court Ruling"; ABC News, "Death Prompts Calls."
- 82 J. Suchard and K. Graeme, "Pediatric Clonidine Poisoning as a Result of Pharmacy Compounding Error," Pediatric Emergency Care 18, no. 4 (2002): 295-96, http://journals.lww.com/pec-online/ Citation/2002/08000/Pediatric\_clonidine\_poisoning\_as\_a\_result\_of.14.aspx. This source was published in 2002; information was not available about the timing of the adverse event.
- 83 Ibid. Information was not available about the timing of the adverse event.
- 84 N. Shehab et al., "U.S. Compounding Pharmacy-Related Outbreaks, 2001-2013—Public Health and Patient Safety Lessons Learned," Journal of Patient Safety (2015), http://dx.doi.org/10.1097/ PTS.00000000000188.
- 85 Centers for Disease Control and Prevention, "Exophiala Infection From Contaminated Injectable Steroids Prepared by a Compounding Pharmacy-United States, July-November 2002," Morbidity and Mortality Weekly Report, 51, no. 49 (2002): 1109-12, http://www.cdc.gov/mmwr/preview/mmwrhtml/ mm5149a1.htm; North Carolina Department of Health and Human Services, Division of Public Health, "Exophiala (Wangiella) dermatitidis Fungal Infection Outbreak," Epi Notes 2002-4 (December 2002-February 2003): 4-6, http://epi.publichealth.nc.gov/pdf/en2002-4.pdf; D. Brown, "Previous Fungal Meningitis Outbreak a Decade Ago Resulted in No Oversight Changes," The Washington Post, Nov. 5, 2012, https://www.washingtonpost.com/national/health-science/previous-fungal-meningitisoutbreak-a-decade-ago-resulted-in-no-oversight-changes/2012/11/05/8417d84e-1fa8-11e2-9cd5b55c38388962\_story.html?utm\_term=.2ec5b1bfe374.
- 86 J.F. Perz et al., "Pseudomonas putida Septicemia in a Special Care Nursery Due to Contaminated Flush Solutions Prepared in a Hospital Pharmacy," Journal of Clinical Microbiology 43, no. 10 (2005): 5316-18, http://dx.doi.org/10.1128/JCM.43.10.5316-5318.2005.
- 87 M. Romano and A. Dinh, "A 1000-Fold Overdose of Clonidine Caused by a Compounding Error in a 5-Year-Old Child With Attention-Deficit/Hyperactivity Disorder," Pediatrics 108, no. 2 (2001): 471-72, https://www.ncbi.nlm.nih.gov/pubmed/11483818. This source was published in 2001; information was not available about the timing of the adverse event.
- 88 R. Civen et al., "Outbreak of Serratia marcescens Infections Following Injection of Betamethasone Compounded at a Community Pharmacy," Clinical Infectious Diseases 43 (2006): 831-37, http://cid. oxfordjournals.org/content/43/7/831.full.pdf+html; California Board of Pharmacy, "Decision: In the Matter of the Statement of Issues Against Robert Eugene Horwitz," Oct. 15, 2008.
- 89 D. Selenic et al., "Enterobacter cloacae Bloodstream Infections in Pediatric Patients Traced to a Hospital Pharmacy," American Journal of Health-System Pharmacy 60, no. 14 (2003): 1440-46, https://www.ncbi. nlm.nih.gov/pubmed/12892028.

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