Antiseptics: sometimes the cause of infection

- Single-use containers are safer.

In late 2013, the US Food and Drug Administration (FDA) issued a warning about the possibility of bacterial contamination of antiseptic solutions (1).

Many infections caused by contaminated antiseptic solutions have been reported (1). The consequences ranged from localised infection at an injection site, to deep infections and even fatal septicemia.

The FDA analysed a series of reports including 4 deaths, 5 wound infections, 7 cases of peritonitis, 10 cases of septic arthritis, 14 catheter infections, 16 injection site infections, and 32 cases of bacteræmia. These infections were confirmed to have been caused by a contaminated antiseptic solution. The products involved included all of the commonly used antiseptic agents: alcohol, iodophores, chlorhexidine, and quaternary ammonium compounds. The microorganisms involved were a variety of bacteria and mycobacteria (1).

The microorganisms were usually introduced into the antiseptic by diluting it with contaminated water, by inappropriate handling, or by storing it under non-sterile conditions. In a few cases, contamination occurred during the manufacturing process.

In practice. The use of an antiseptic is not a barrier to infection. It is better to avoid using and discarding any antiseptic that has been stored or used under conditions that could result in contamination, in particular if it has been diluted with non-sterile water or stored inaccurately. Antiseptic solutions packed in single-use containers avoid this problem, provided they are not kept after opening.

Mirtazapine: rhabdomyolysis

- Reports from the WHO database.

In late 2013, the Uppsala pharmacovigilance centre analysed 47 reports in the World Health Organization (WHO) pharmacovigilance database of rhabdomyolysis associated with the antidepressant mirtazapine (1).

The affected patients, 31 men and 16 women, had a median age of 43 years. One case involved in utero exposure of a neonate whose mother had attempted suicide by overdosing on mirtazapine and venlafaxine. The outcomes of 35 cases were known, and included one death, and two patients who recovered with sequelae. Six cases were suicide attempts.

Mirtazapine was the only suspected drug in 18 cases. The doses were generally between 15 mg and 45 mg daily.

Mirtazapine is similar to mianserin and has noradrenergic, serotonergic and anti-histamine properties (1,2). Many possible mechanisms were postulated, mainly related to the fact that mirtazapine provokes muscle adverse effects, such as myalgia and muscle rigidity, as well as serotonin syndrome and neuroleptic malignant syndrome. It is metabolised by the cytochrome P450 isoenzyme CYP3A4, and co-administration of inhibitors of this isoenzyme can therefore lead to mirtazapine accumulation and enhance its dose-dependent effects.

In practice. In light of these findings, healthcare professionals and patients should be on the alert for muscle symptoms during mirtazapine therapy, and its harm-benefit balance should be reviewed if they develop.