

IMAGING IN INTENSIVE CARE MEDICINE



Black urine: what is happening and what should we do?

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A 88-year-old patient hospitalized for a subdural hematoma got a *Staphylococcus epidermidis* and *Acinetobacter baumannii* complex nosocomial infection and started treatment with cefiderocol. Five days later, he developed a massive gastric hemorrhage immediately treated with pantoprazole: the next day black urine appeared. He was not receiving iron supplementation. On the third day after cefiderocol discontinuation, the urine returned to citrine yellow. Several drugs are frequently associated with urine discoloration. To date, the real mechanism that determines the dark urine discoloration during cefiderocol treatment is unknown. The drug is a siderophore cephalosporin with potent chelating activity with ferric iron, and it has been hypothesized that it could be attributed to the renal clearance of cefiderocol–ferric ion complexes in a circumstance in which a significant reabsorption of haemic iron is observed, also favored at intestinal level by the alkalization due to pump inhibitors. In fact, the iron-binding portion of the molecule is a phenol group and the phenol–ferric complex may explain the dark color of the urine.



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