

Deep Purple Urine

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Picture 1. Purple urine bag.

A 50-year-old man was admitted with a complicated pneumonia. During his long-term inpatient stay, a plastic urinary catheter was positioned. A month after admission the patient's urine became purple (Picture 1). The patient was afebrile and did not have lower urinary tract symptoms but was constipated. Urinalysis revealed pH 7.8, leucocyturia

and negative nitrites. Urine culture isolated *Proteus mirabilis* (>100,000 colonies/mL), sensitive to amoxicillin/clavulanate. His urine cleared after antibiotic administration.

Purple urine bag syndrome is a rare benign entity characterized by the deposition of a blue (indigo) and red pigment (indirubin) in alkaline urine, both resulting from bacterial decomposition of indoxyl sulphate, a metabolite of dietary tryptophan (1). This condition is associated with female gender, constipation, institutionalization and use of a plastic urinary catheter (2). *Proteus* spp and *Pseudomonas* spp are the most commonly reported organisms but bacteria such as *E. coli*, *Enterococcus* spp., *Klebsiella* spp. and *Morganella* spp. are also associated with purple urine bag syndrome (1).

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