Background Acute severe ulcerative colitis (UC) is a potentially life-threatening presentation and requires coordinated multidisciplinary management. The aim of our prospective audit was to evaluate the inpatient management and outcome of patients with UC.

Methods All consecutive patients admitted to Aberdeen Royal Infirmary for treatment of acute UC were prospectively recruited in the study over a 6 months period. All patients were followed up for a minimum of 3 months from the discharge date. Patient’s demographics, clinical data, endoscopic assessment, medical and surgical treatment details were collected. The clinically significant outcome was defined as steroid treatment failure requiring surgery or rescue therapies (cyclosporin or infliximab) despite intravenous steroid therapy. Statistical comparisons were made using Non-parametric Mann-Whitney test and Fishers Exact test.

Results 27 patients (15 females; median age 41 years (IQR 31–63)) were admitted for treatment of UC during the 6 months period. 23 patients had severe UC as per Truelove and Witts Score. 19 patients had pre-existing diagnosis of UC prior admission. Faecal calprotectin was checked in 3 patients and were all >1000 ug/g.

All patients received a minimum of 3 days of intravenous steroid. 10 patients were non-responsive to steroid therapy. 3 patients received rescue infliximab while 1 patient received cyclosporin. 7/27 (26%) required in-patient colectomy during the study period. Previous diagnosis of UC, previous admission or mesalazine use were not associated with steroid treatment failure. Only bloody stool frequency at Day 3 had a statistically significant association (p=0.03). The median (IQR) bloody stool frequency was 5 (1.8–10.3) for those who were in the steroid failure group compared to 3 (0–3) for those in the steroid responder group.

Conclusions In our prospective study, the in-hospital colectomy rate was 7/27 (26%) for acute presentation of UC. Systemic oral steroid use prior to admission was associated with steroid treatment failure but was not statistically significant (p=0.05). Future study with a larger sample size could perhaps identify more clinical and laboratory variables that could be useful to stratify patients at risk of steroid failure.