Hypothesis
The routine use of PUG’s in the management of patients post bulbar urethroplasty to guide catheter removal is not indicated.

Aims of Study
• Evaluate the incidence of extravasation identified on PUG post bulbar urethroplasty
• Further analysis of operative subgroups and possible pre-disposing factors to extravasation
• Determine rates of stricture recurrence

Study Design, Materials and Methods
• Retrospective review of all urethroplasties performed by two surgeons in a tertiary referral centre (2008 to 2015)
• Identification of cases with extravasation on initial PUG and comparative statistical analysis between two operative subgroups
• Rates of stricture recurrence post interval PUG calculated and compared between subgroups

Results
• N = 108, 11 (10.2%) Primary Anastomosis (PA) and 97 (89.9%) Buccal Graft (BG) urethroplasties
• Mean age 47 years, mean follow up of 24 months
• Average stricture length 2.3cm
• Overall extravasation rate of 8.3% (9/108) — (fig. 3)
• Only 4.6% (5/108) classified ‘significant’, delaying catheter removal
• No statistical difference between rates of extravasation in PA and BG urethroplasties (Fischer-exact = 1.0)

Interpretation of Results
• Extravasation seen in only 8.3% (9/108) patients with no statistical difference between types of urethroplasty. This is comparable to other studies (5.1%) and (4.5%).
• Significant extravasation seen in only 4.6% (5/108) of patients, delaying catheter removal
• Catheters could have been removed in 95.4% (103/108) of patients without the need for an initial PUG
• Low rates of stricture recurrence – 10.1% (11/108), which is comparable to other studies (8%).
• No statistical difference in patients with no or non-significant extravasation and those with significant extravasation
• Catheters were retained for an additional 1 – 2 weeks in cases with significant extravasation but this did not affect the risk of stricture recurrence

Concluding Message
• Low rates of extravasation suggests little benefit in performing PUG’s except in cases where there is at least an unfavourable associated co-morbidity or factor affecting wound healing identified
• This represents a significant potential saving in resources and improvement in patient experience

Limitations/opportunities for further study
• Further investigate possible factors affecting extravasation rates e.g. co-morbidities
• Development of a risk-stratification tool incorporating co-morbidities to determine the need for interval PUG

Contact Details
Dr Chris Thompson
christhompson3@nhs.net
Western General Hospital,
Crewe Rd South, Edinburgh,
UK, EH4 2XU

References
1. Extravasation on postoperative peri-catheter retrograde urethrogram after bulbar urethroplasty: Time to pull the RUG out? Granten M.A., Webber G.D., Peterson A.C.

Figure 1: PUG demonstrating bulbar stricture
Figure 2: PUG demonstrating ‘significant’ extravasation
Figure 3: Rates of stricture recurrence by operative type.
Figure 4: Rates of stricture recurrence

Post-bulbar urethroplasty peri-catheter urethrogram (PUG), is it really required?
Thompson C1, Shahzad K2, El-Mokadem I1, Denholm L1, Hillen M1, Alhasso A1, Keanie J2, Stewart L1
1. Urology Department, Western General Hospital, Edinburgh 2. Radiology Department, Western General Hospital, Edinburgh