Admission Day, Inclusion

- Excluded

Informed consent

- Excluded

Randomization (n=44 patients)

Group 1 (n=22)
- Ringerfundin®

Group 2 (n=22)
- G5-K⁺solution®

OP-Day

Open radical cystectomy with urinary diversion
- Preoperative plasma Na, K, Cl, Mg, HPO₄, Glc, osmolality, renin, aldosterone, arginine-vasopressin and brain natriuretic peptide, urine Na, Cl and osmolality
- Preoperative urine: NGAL, Na, K, Cl osmolality
- Arterial blood gas analysis

Intraoperative fluid management:
- Start norepinephrine at 2µg/kg/h after induction of anesthesia. Adapt norepinephrine infusion from 2-8µg/kg/h to maintain mean arterial pressure between 60-100mmHg
- 1ml/kg/h of crystalloid solution according to randomization until cystectomy is finished, then 3ml/kg/h until end of surgery
- Blood loss substitution 1:1 with balanced Ringer’s solution
- if Hb<80g/l: administration of PRBC
- if PPT<50% or surgically indicated: FFP unit
- if Tc <50’000G/l: Platelets unit

Rescue treatment if MAP<60mmHg (only after norepinephrine is up to 8µg/kg/h):
1. Norepinephrine bolus 10µg
2. Additional bolus of 250ml of balanced Ringer’s solution if MAP <55mmHg, metabolic acidosis (BE<-5, pH <7.25)

Postoperative Period

- Time of first flatus and defecation
- Body weight (daily)

6 h postoperatively, and POD 1-4:
- Plasma Na, K, Cl, Mg, HPO₄, Glc, osmolality, renin, aldosterone, arginine vasopressin and brain natriuretic peptide (BNP), urine: NGAL Na, Cl and osmolality
- Urine Na, K, Cl, osmolality