How I Do It Series NUMBER 1

Day Case Laparoscopic Nephrectomy

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Patient Selection	• Non-functioning kidney or renal cell carcinoma • T1 tumour <7 cm • Typical day surgery criteria, of which a well motivated patient is by far the most important
Anaesthetic Techniques	• We use a standardised protocol which is similar to that used for laparoscopic cholecystectomy • Induction with fentanyl and propofol. Tracheal intubation and controlled ventilation breathing sevoflurane in air-oxygen • Long acting intraoperative opioids are avoided • Multimodal antiemesis with dexamethasone and ondansetron • Intravenous hydration with 1 or (maximum) of 2 litres Hartmann's solution
Surgical Technique	• Standardised transperitoneal laparoscopic approach with patient in lateral recumbent position • Staples or locking clips to renal pedicle • Infiltration of trocar ports and extraction site with 30 ml of 0.5% levo-bupivacaine • No urinary catheter or routine drains
Peri-operative Analgesia	• Preoperative oral slow-release ibuprofen, 1600 mg • Intraoperative iv paracetamol near end of case • Fentanyl 2mcg/kg towards the end of the case • Postoperative regular paracetamol and codeine, if needed • Rescue intravenous fentanyl, if required
Take Home Medication	• Slow release ibuprofen, paracetamol and codeine for 5 days • Buccal antiemetics if PONV problematic while in hospital
Organisational Issues	• Surgeon must be experienced in laparoscopic perirenal procedures with a low rate of complications • District nurse follow-up after discharge (at least during early phase of learning curve) • Written information listing warning signs of serious postoperative complications and patients encouraged to self-refer to the surgical assessment unit if these signs are present • As with cholecystectomy, immediate postoperative outcome is difficult to predict, so increasingly a default to day case booking strategy is adopted

Authors' Addresses

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Common Pitfalls	• Wound drains are not a substitute for careful haemostasis • We do not routinely measure urine output or renal function as small, asymptomatic changes do not alter management
Anticipated Day Case Rates	• 15–20% (for both benign and malignant)