Post-op Progress

S/

① Pain — severity ? comfortable ? can take deep breath, - if ↑ → inadequate
Analgesic req

② Hydrat — ? Thirsty ? Drinking
Urine — vol/f & colour

③ Bowels — Abdo distens → Rumbling → Flatus
Appetite (new)
? Hungry → Start Drinks → 30 ml/hr → Soft diet → Full diet
+ BS + flatus

④ Cx (i) Mobiliz / TED stockings / SC Heparin , calf tenderness/swelling
(ii) RS SOB, cough — Physio: chest
CVS PIC
Fever

⑤ Rx Wound care

⑥ Discharge plan
Sug — Sutures taken out
R/V — Ix results
Pathology results → Reassure
Further Mx — Adjuvant Rx
Refenal — Medical: Physician
Physio / Social Worker / O.T.

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O/

Charts — Fluid Balance chart
Drug chart – Analgesic requirement
– PCA

Gen — Well / Unwell

Vitals — HR ↑
BP ↓
°C ↑ ± pattern
RR ↑

— Hydrat° stat : mucous mem, skin turgor
(Overload : JVP ↑(elevated), bilat crep, ± SOA)

— Tubes : Urinary catheter – Output ± colour
Drain tubes — Volume ± colour Blood / Serosanguineous

Abdo

(I) distended abdo ?
Wound — Redness
Indurat°, discharge
? dehiscence
haematoma, seroma
Sutures/Staples

CVS

AB
S1 —— S2 ? S3/S4

RS

Cough – ? strong
PN ↓
BS ↓
Xcreps, XVR
Pneumonia
} Basal atelectasis
– symmetrical
PE

Back Pressure sore

LL Calf redness/swelling/tenderness
Stockings – TED (contoured elastic stockings)

Neuro Gait – ? Mobilising

POST-OP Mx

① NBM

IV fluids
- Maintenance : 5% Dextrose 2L } 10mmol/L
  - N Saline 1L
  - KCl 2g/bag once ✓ good urine o/p
- Losses
  - Check U+E daily

② Monitor
- PR — Report if >100
- BP <100
- °C >38.5
- RR >24
- Fluid balance chart
  - Urine output >0.5–1ml/kg/hr (30–60)
  - Drain tube / NG tube — 4hourly aspirate + free drainage

③ Pain relief
- Epidural infus : Bupivacaine + Fentanyl
- IV " (PCA)

④ Issues

(I) Wound Mx — Dressings
- Check wound D4
- Remove drains when <50ml/d / Redivac®
- " suture (10D
- Colostomy / Ileostomy
  - ? protruding adequately
  - discharge : when start
  - Barrier cream
  - Ongoing stoma edu

(II) Nutrit°

When to start ō diet
- Feels hungry, stomach rumbling
- Passing flatus / faeces
- BS present
- Soft abdo
- Diuresis

Fluids 30ml/hr → Soft diet → N diet

Otherwise :
- Ice to suck
- Frequent mouth washes (lemon-glycerine swab) } ō hygiene
- if >7–10D without ō intake : TPN

(III) DVT prophylaxis — Mobilize
Elastic contoured compression stockings
Heparin SC 5000 U bd

(IV) Chest physio

(V) Hygiene
- Bed bath
- Inspect pressure areas
- IDC: catheter toilet

Off when no longer on epidural

Bed toilet/commode

Postop fever

D0–1 : Basal atelectasis, Transfus-related
D2–4 : Pneumonia, UTI, Thrombophlebitis
D5–10 : Wound infect°, PE

Causes

① Basal atelectasis — fr sputum retent° in patient ° ineffective cough

Common –
① Tissue react° / Inflamm → acute × early
② Infect — Wound infect° — Cellulitis, Abscess — D2–10 (1st few days — Chest / Strep)
Pneumonia * Aspirat°
UTI – Pyelonephritis
IV site — Thrombophlebitis : Supp / Chem
Cellulitis
(Deepseated — Subphrenic abscess / pelvic
Peritonitis — Anas leakage) Pyelophlebitis → Jaundice, Hepatomegaly, Lx: LFT
(IE — Artificial valve, valvular ♡D
Prosthesis — OM)
(Infect° rel to pressure areas)
(CMV — fr blood transfus°)

Uncommon –
① DVT / PE
② Drug fever
ALC withdrawal
Malignant Hthermia
Related to blood transfus°
③ Endo – Thyroid / Adr crisis

[In children, tonsillitis, otitis media]
Malignancy
Iatrogenic – overtreat – Fals fever (patient)

Ix

Bloods
FBE — WCC ↑ — Np ↑

Microb
BC
Swab fr wound site
Remove IV → Send tip – culture
MSU ⊖/C
Sputum ⊖/C

Imaging
(i) CXR
Abdo US — abscess
" CT — subphrenic / pelvic abscess
(ii) Doppler US
V/Q scan
} PE
(iii) Radiocontrast study — Anas dehiscence

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Prevent^ ` infect^

Preop – Bowel prep
Antiseptic soap – shower/bath
✡ Shorten preop stay in hospital

Perioperative
- Prophylactic antibiotics where appropriate
- Limited clipping ` hair – after anaes induct^
- Prep – Chlorhexidine/Povidone iodine (Plastic drapes – ✗ work)
- OT – Asepsis : (i) Ventilat^, clean ` OT, ↓ ✗ ` OT staff & movement
  (ii) Steriliz^ ` equipment – autoclaving
  ethylene oxide
  trays
  – glutaraldehyde
  (iii) Surgeon – Preop washing ⊂ antisepsis ⇝ ↓ transient flora (eg. S. aureus)
  Special clothing
  Rubber gloves
- Op – Preserve blood supply
  Remove debris, devitalised tissue
  Minimise use ` foreign material
  ↓ dural ` op
  ± Drain btw skin & musc
  Interrupted stitch
  Close layers separately
- Postop – Dressing ⇝ Only inspect on D4-5
  Nutritional support / ✗ DM / Cease steroids

Wound infect^ ⇝

① Remove 1 or more suture (allow free drainage)
Drain abscess – Pus ⊂ BFC
② Dress wound
Antiseptic
③ Abiotics – I: septic
~~spreading infect~~
valvular D/D

Classificat^ ` surgical ✗ wounds

		Infct^ rate (%)
① Clean	eg: hernia, ganglion	2
② Clean contaminated	eg: cholecystectomy, TURP, gynae	5
③ Contaminated	eg: colon surg	10
④ Dirty	eg: perforated appdx, PUD	40

No urine postop

ΔDx:

① Prerenal – hypovolaemia : dehydration, 3rd space loss, blood loss (2nd most likely)

② Renal – Acute tubular necrosis : due to prerenal factors

} Anuria

③ Postrenal – Bladder outlet obstruct – blocked catheter (most likely – Acute urinary Retent°)
if no " : pain
Ureters tied off accidently

Mx: Ⓐ Diagnosis

① Hx fr patient – Sensat° full bladder → if yes: catheterise / unblock catheter
– Thirst, lightheaded, tachycardia → hypovolaemia
– Excessive abdominal pain – suggest intraabdominal bleed or retent°

② Patient medical records – Operating theatre notes: complication
Anaesthetic record

③ Examination – Volume status – BP postural drop, hypotension
PR tachycardia
} hypovolaemia
Peripheral perfus° : cold & clammy
JVP not visible
tissue turgor, mucous membrane – dry

– Abdo → palpable bladder

Ⓑ Ix
① If bladder distended – Relieve outflow obstruction: Flush urinary catheter
Insert a "

② If hypovolaemia – Assess severity
(Resus – if shock) IV access
Volume expander – Haemacell 500ml run in start till BP responds
Stay ° patient till stable
If blood loss likely – Ix: X-match Hb
If mild hypovolaemia → Oral fluid 250ml start
↓
250ml/hr
with hourly review of urine output
(Modify according to cardiovascular status)

③ If either ē above – Ureteric obstruction: Abdo ultrasound for hydronephrosis

ATN : Exclude other causes
Ix: Urea & creatinine for rise
Rx: Fluid + diuretic to obtain urine output
± Haemofiltration if severe