

Table1. Checklist of fast track and conventional perioperative operation treatments

Time	Fast track treatment	Conventional treatment
Preadmission	-Psychological optimism	-No psychological optimism
(After randomization)	-Pre-assessment for risk adjustment	-Pre-assessment for risk adjustment
	-Anesthesiologic information of combined anesthesia consisting of thoracic epidural and general anesthesia	-No Anesthesiologic information of general anesthesia
	-Information of the fast track treatment and the informed consent	-Information of the conventional treatment and the informed consent
	-Guided tour of fast track wards	-No tour
	-Operation schedule	-Operation schedule
Preoperation	-Bowel preparation: semiliquid diet 1days before operation	-Bowel preparation: liquid diet 1-2days before operation
	- Enemas:	-Enemas:
	Polyethylene Glycol-Electrolyte Powder ® (Hengkang Zhengqing™, Jiangxi Hygecon Pharmacy CO.,Ltd, Shangrao, CN) the afternoon before surgery,2 boxes mixing with 2000ml warm drinking water	Polyethylene Glycol-Electrolyte Powder ® the afternoon before surgery, 2 boxes mixing with 2000ml warm drinking water
	-Fasting: last meal 2h before operation	-Fasting: last meal 10h before operation
	-Complete Enteral Nutritional Emulsion Supportan (TPF-T) ® (Supportan™, Sino-Swed Pharmaceutical CO. Ltd, Wuxi, CN) 600ml or Fresubin Diabetes (TPF-D) ® (Fresubin Diabetes™, Sino-Swed Pharmaceutical CO. Ltd, Wuxi, CN) 500ml (especially for patients with diabetes mellitus) p.o. 8h before operation	- No oral intake in the operation day
	- 10% Glucose 400ml p.o. 2-3h before operation	- No oral intake in the operation day
	- Nasogastric tube 0.5h before operation for Gastrointestinal decompression	- Nasogastric tube 0.5h before operation for Gastrointestinal decompression
Intraoperation		
-Anesthetic management	- Placement of epidural catheter (T6-L1), depending on the surgical resection); test-dose (3 ml of 2% lidocaine (Hefeng™, Harvest Pharmaceutical CO. Ltd, Shanghai, CN)) followed by continuous infusion (10 ml of 0.5% or 0.75% ropivacaine (Naropin™, APP Pharmaceuticals, LLC., Schaumburg, IL) according to the age and size of the patient before surgical incision	- No thoracic epidural anesthesia
	- Balanced Combination with general anesthesia: intravenous midazolam (Liyuxi™, Nhwa Pharmaceutical Co., Ltd., Xuzhou, CN) (0.1 mg/kg), target-controlled infusion (TCI) of propofol (Diprivan™, AstraZeneca Pharmaceutical Co., Ltd., Shanghai, CN) (4-8 µg/ml), sufentanil (Fukang™, Humanwell Pharmaceutical Co., Ltd., Yichang, CN) (0.5-1µg/mg), rocuronium (Esmeron™, Organon Teknika B.V., Oss, NL) (0.6-0.9mg/kg).	- Normal General anesthesia: intravenous midazolam (0.1 mg/kg), target-controlled infusion (TCI) of propofol (4-8 µg/ml), sufentanil (0.5-1µg/mg), rocuronium (0.6-0.9mg/kg).
	The patients were ventilated mechanically.	The patients were ventilated mechanically.
	Anesthesia was maintained propofol TCI (2-4 µg/ml), remifentanil (0.02-0.03µg/kg/min) and intermittent boluses of rocuronium.	Anesthesia was maintained propofol TCI (2-4 µg/ml), remifentanil (Ruijie™, Humanwell Pharmaceutical Co., Ltd., Yichang, CN) (0.02-0.03µg/kg/min) and intermittent boluses of rocuronium.
		As equally depth of anesthesia is also needed in conventional treatment group with no thoracic epidural anesthesia, more drug dosage of general

anesthesia is used.

	- Morphia as little as possible	- No restriction of Morphia use
	- Monitoring: (Datex Ohmeda™ S/5 Anesthesia Monitor (Datex-Ohmeda Division, Instrumentarium Corp., Helsinki, Finland)) consists of electrocardiogram (ECG), heart rate (HR), respiratory rate, arterial pressure (BP), SpO2, end-tidal CO2 (etCO2), and bispectral index (BIS). - The target concentration of propofol: keep BIS between 40 and 60 to maintain adequate hypnosis. - Perioperative hypotension: systolic blood pressure (SBP) < 80 mmHg or a decrease of 30% baseline value and was treated with reduction of anesthetics, fluid supplement, and a bolus dose of ephedrine (Mahuangsu™, Northeast Pharmaceutical Co., Ltd., Shenyang, CN) (10mg, IV). If SBP was above 160 mmHg or increase >30%, an increase of propofol or remifentanyl infusion was given to deepen anesthesia.	- Monitoring: the same as fast-track group
-Antibiotic prophylaxis	- Yes,	- Yes
-Surgical management	-Laparoscopic/open surgery as randomization	-Laparoscopic/open surgery as randomization
- Warming	- Yes, body warming by thickening quilt as well as intravenous fluid warming	- No body and intravenous fluid warming
- Drains	- Minimal use and early removal of abdominal drains	-Regularly use and removal of abdominal drains
- Fluid infusion	- Totally ≤ 1500ml during operation	- No restriction
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Postoperation		
- Pain management	-Patient-controlled continuous epidural analgesia with a 5ml/h continuous infusion of 0.15% ropivacaine and a bolus dose of 2.5ml (locktime 15min) until 48h after operation, paracetamol (Tylenol™, Johnson & Johnson Pharmaceutical Co., Ltd., Shanghai, CN) p.o. when needed	-Patient-controlled intravenous analgesia with a 4ug/h continuous infusion of sufentanil and a bolus dose of 1.5ug (locktime 15min)  -Bucinperazine (Qiangtongding™, Northeast Pharmaceutical Co., Ltd., Shenyang, CN) or Morphine (Mafei™, Northeast Pharmaceutical Co., Ltd., Shenyang, CN) intramuscular injection when patient-controlled intravenous analgesia isn't enough for pain control
- Diet	- Chewing gum 1 piece tid p.o.  - At least 10% Glucose 200ml p.o. within 24h after operation  -Liquid diet and Enteral Nutritional Emulsion Supportan 200ml or Fresubin Diabetes 300ml (especially for patients with diabetes mellitus) p.o. the next day of operation  - Diet rehabilitation as early as possible (dose increase of Enteral Nutritional Emulsion or when needed)	-No chewing gum  - Fasting until flatus  - Liquid diet after flatus  - Normal diet after defecation
- Intravenous fluid infusion	- Stop intravenous high energy fluid infusion after dosage of Enteral Nutritional Emulsion Supportan ≥ 600ml or Enteral Nutritional Emulsion Fresubin Diabetes ≥ 500ml	- Intravenous high energy fluid infusion on daily basis and continuing until adequate oral intake

	- No intravenous High-energy Nutrient Fluid after 72h post-surgery	
	- Restricting and avoiding excessive intravenous fluid infusion, keeping body weight as pre-surgery	
- Energy	- Keep the total energy intake (both diet and intravenous fluid infusion) 25-30kcal/kg/day	- Keep the total energy intake (both diet and intravenous fluid infusion) 25-30kcal/kg/day
- Nasogastric tube and urethral catheter	- Remove nasogastric tube as soon as the end of operation	- Remove nasogastric tube after 1st flatus postoperation
	- Remove urethral catheter within 24-48h after operation	- Remove urethral catheter when 1 <sup>st</sup> time meet: patient have the feeling of automatic micturition and $\geq 200$ ml after valving-on urethral catheter
- Ambulation	- Forced ambulation within 24h post-surgery, no time restriction	- No ambulation scheme
	- Ambulation time $\geq 1$ h per day, and increasing day by day	
	- Patients walking to weight themselves every day	
Adjuvant chemotherapy	- Xelox	- mFolfox6
	- repeat every 3 weeks for 8 cycles	- repeat every 2 weeks for 12 cycles
	- Regimen	- Regimen
	Oxaliplatin 130 mg/ m <sup>2</sup> day 1, Capecitabine (Xeloda <sup>TM</sup> ) 850-1000 mg/ m <sup>2</sup> twice daily for 14 days	Oxaliplatin (Eloxatin <sup>TM</sup> ) 85 mg/m <sup>2</sup> IV over 2 hours, day 1 Leucovorin (Tongao <sup>TM</sup> ) 400 mg/ m <sup>2</sup> IV over 2 hours, day 1 5-FU (Jinyao <sup>TM</sup> ) 400 mg/ m <sup>2</sup> IV bolus on day 1, then 1200 mg/ m <sup>2</sup> /day x 2 days (total 2400 mg/m <sup>2</sup> over 46-48 hours) continuous infusion
	- No peripherally inserted central catheter (PICC)	- Peripherally inserted central catheter and care of PICC in outpatient clinic every week
	- Hospitalization no more than 24h each cycle	- Hospitalization for 3 days each cycle