Enhanced Recovery after Surgery (ERAS)

To improve the quality of patients care by improving their experience and clinical outcomes

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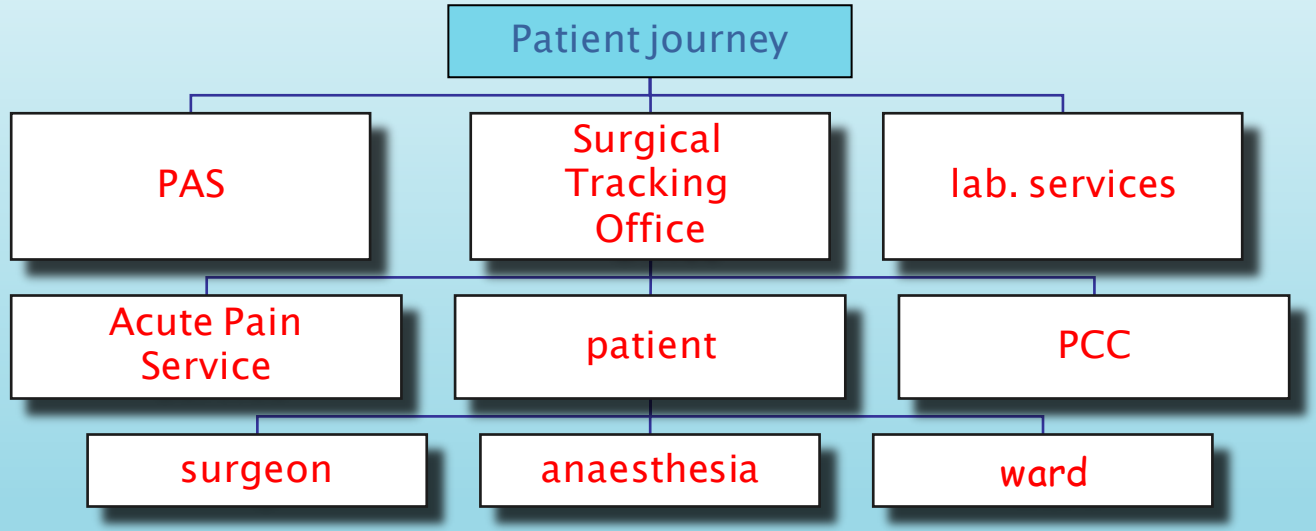
Hamad Healthcare Quality Institute

Fast Track

vs.

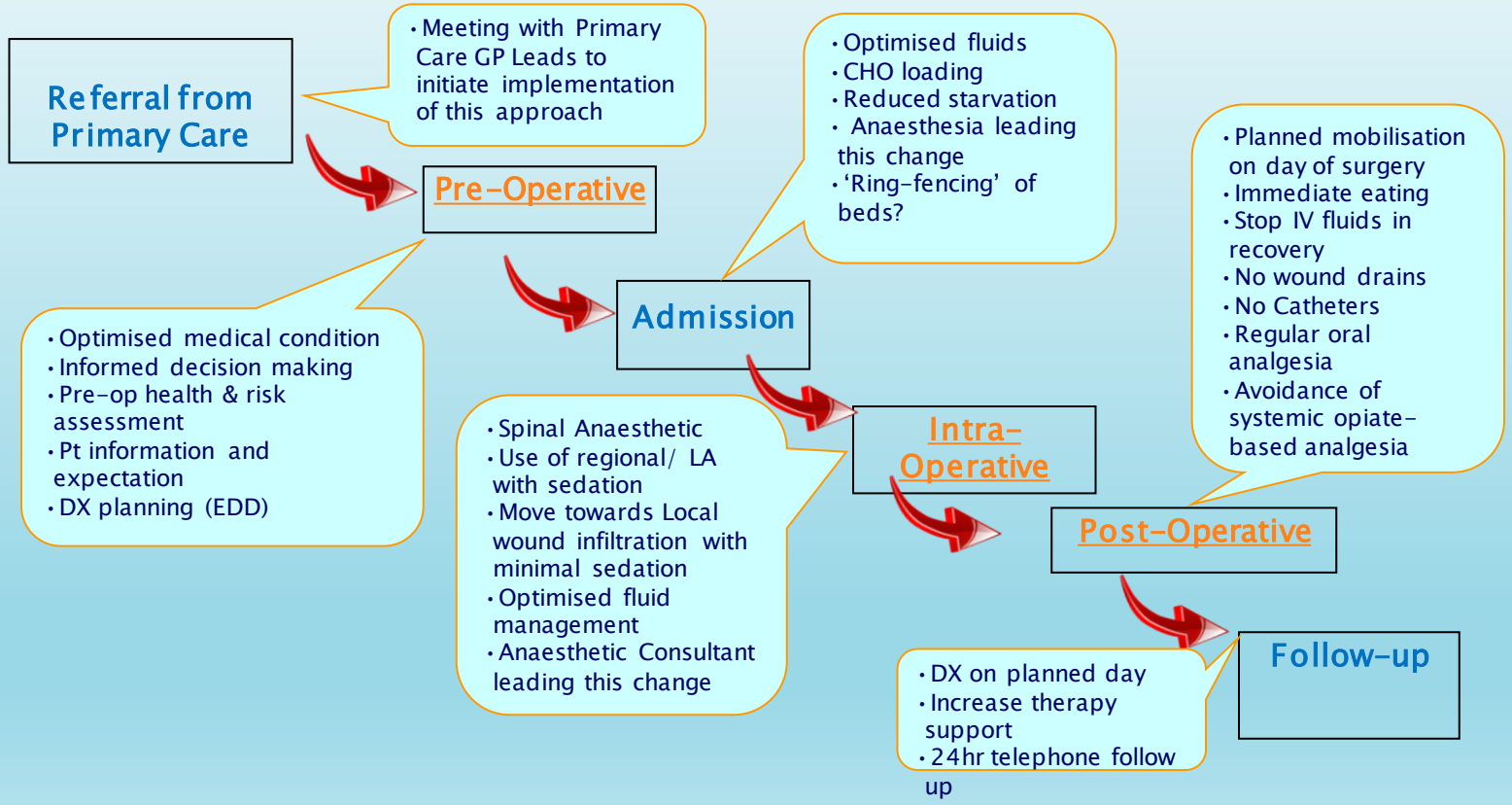
Enhanced Recovery

Co-operation between many disciplines



Cerner

Enhanced Recovery Map – Generic Principles



Audit cycle

Discharge criteria

Preadmission

Active Rehab

Nutritional support+/-
Premedication

PONV/feeding

ERAS

Short-acting GA
+Non-opioid analgesia

Temperature

Reduced SSR

'Plastic/luggage'

Optimised fluids

Minimally Invasive surgery

Problems

To change the daily routines/protocols

To maintain the surgeons' focus

To keep the staff focus

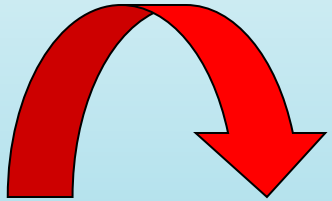
To keep the anaesthetists' focus

Standardise !!

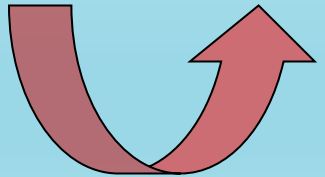
Standardise anaesthesia with ultra-short-acting anaesthetics

Standardise surgery

Standardise nursing plans



Optimized patient recovery



Multi-modal "balanced" analgesia
Opioid – sparing drugs
20 – 50% reduction in opioid requirements

- NSAID's
- COX-2 inhibitors
- Ketamine
- Paracetamol
- Magnesium
- Esmolol
- Clonidine
- Gabapentin/pregabalin
- Local anaesthetics
- Dexamethasone

The Drip stand

- Excessive fluids
- Urinary catheter
- Inhibits mobilisation
- Staff attitudes
- “other”

Acta Orthop. 2014; 85(6): 548–55

Traditions and myths in hip and knee arthroplasty

Husted H et al

Should be abandoned – preoperative removal of hair, urine testing for bacteria, use of plastic adhesive drapes intraoperatively, use of a tourniquet, a space suit, a urinary catheter, closure of the knee in extension and pre-warming of the operation room.

The safety and efficacy of tranexamic acid is supported by meta-analyses.

No evidence to support postponement of changing of dressings to after 48 h, routine dental antibiotic prophylaxis, continuous passive motion (CPM), the use of compression stockings, cooling for pain control or reduction of swelling, flexion of at least 90 degrees as a discharge criterion following TKA, or having restrictions after THA.

Support the use of NSAIDs, early mobilization, allowing early travel, and a low hemoglobin trigger for transfusion.

More contemporary evidence-based principles can be expected to improve early functional recovery, thus reducing morbidity, mortality, and costs

BMJ Open. 2014 Jul 22;4(7)

Effectiveness and implementation of enhanced recovery after surgery programmes: a rapid evidence synthesis.

Paton F et al

17 systematic reviews and 12 additional RCTs

There is consistent …evidence that enhanced recovery programmes can reduce length of patient hospital stay without increasing readmission rates. The extent to which managers and clinicians considering implementing enhanced recovery programmes can realise savings will depend on length of stay achieved under their existing care pathway.

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ERAS

- Scott NB et al 2002
- Muehling et al 2008
- Campos et al 2009
- Zhao et al 2010
- Cense et al 2006
- Saeki H et al 2009
- Munitiz et al 2010
- Ali et al 2010
- van Dam et al 2008
- Nishimori et al 2007
- Muehling et al 2009
- Varadhan KK et al 2010
- Arumainayagam et al 2008
- Scott NB et al 2013

RESULTS:

Surgeons realized that introduction of ERAS made strong communication between surgeons and anesthesiologists. And they also thought it is not surgeons themselves nor anesthesiologists themselves but 'team care' which could produce positive outcome of ERAS.

CONCLUSIONS:

Introduction of ERAS as collaboration of surgeons and anesthesiologists resulted in facilitating communication of surgeons and anesthesiologists.

Change of surgeons' opinion against anesthesiologists after introduction of enhanced recovery after surgery (ERAS) protocols: questionnaire survey among surgeons who participated ERAS care.

Shida D et al

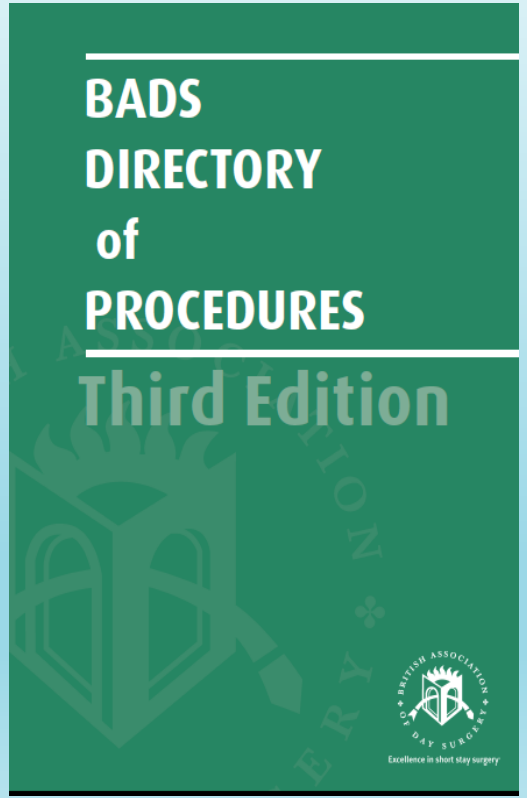
Masui 201;60(12):1411-5 [Article in Japanese]

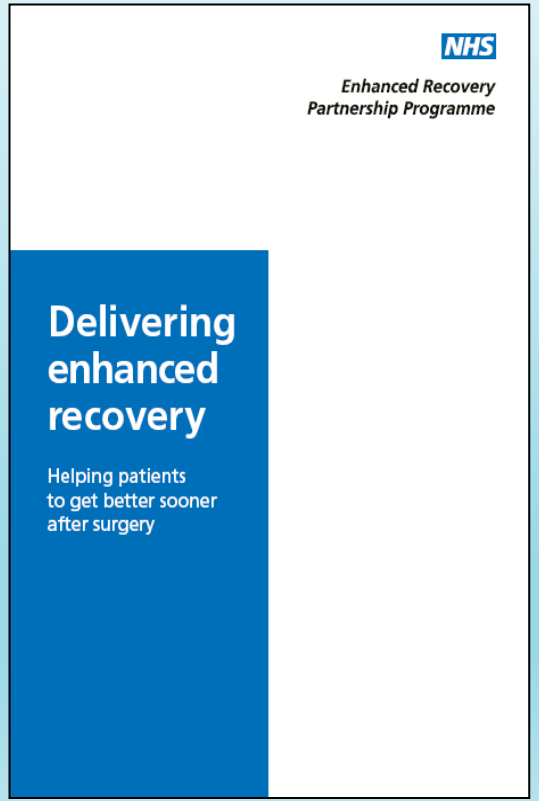
Dr Abdulatif –19th March, 2013

- Traditional to AHS
- De-centralised decisions
- Multidisciplinary
- Patient centred
- International Standards
- Physician led

- Traditional to ERAS
- Nurses/physios
- Multidisciplinary
- Patient-centred
- Protocolised
- HCP delivered

The future of elective care – day surgery or enhanced recovery?






NHS
SCOTLAND
The Healthcare Quality Strategy for NHSScotland

Recommended
This has been highlighted as a potential high-impact change by our peer review process

Enhanced recovery for elective surgery

Provided by: Department of Health

Summary

Enhanced recovery programmes use evidence-based interventions to improve pre-, intra-, and post-operative care. They have enabled early recovery, quicker discharge from hospital, and more rapid return to normal activities. Quality is improved by reducing complications and enabling a more rapid return to function. Productivity is improved by reducing hospital stay.

Evidence summary

Yes	The intervention has been successfully implemented
Yes	The intervention has been successfully replicated
Yes	The intervention is linked to standards or guidance
Yes	The intervention is supported by one or more national organisations
Yes	An evaluation of the effects of the intervention has been carried out
Yes	There are publications relating to this intervention

Enhanced Recovery Programme- Aims and Objectives

Audit Scotland Report (2010) suggested reductions in length of stay, without compromising **quality of care**, is better for patients and will ensure better use of resources

ERP is a multidisciplinary programme that aims to accelerate patient rehabilitation and reduce peri-operative morbidity thereby safely reducing hospital length of stay.

Programmes **should not be exclusive to the young, fit and healthy** and, if conducted properly, every patient should benefit.

The project aims to utilise evidenced based good practice and spreading it across Scotland to provide an equitable experience of patient care.

The project is engaging with NHS Boards to understand their current pathways and then **utilise the current expertise** to support spread and adoption and support implementation of local action plans.

Potential capacity released

NHS

Enhanced Recovery Partnership Programme

Annual impact of potential improvements in mean LOS

assessed using 2009-10 HES compared with 2008-09 baseline.

Mean LOS improves to best decile

Procedure group	Baseline mean LOS	2009-10 mean LOS	Target LOS for improving providers	No. providers to improve	Average LOS change	Bed days saved	Cost of bed days saved (£)
Primary hip replacement	6.3	5.9	5.1	119	1.1	45,800	£ 11,400,000
Primary knee replacement	6.1	5.9	5.0	115	1.1	50,100	£ 12,500,000
Colectomy	10.2	9.8	7.9	105	1.9	15,600	£ 3,900,000
Excision of rectum	12.4	11.8	9.1	108	2.8	20,100	£ 5,000,000
Abdominal hysterectomy	4.6	4.4	3.1	123	1.0	26,900	£ 6,700,000
Vaginal hysterectomy	3.1	2.8	2.0	120	0.8	5,000	£ 1,300,000
Bladder resection	16.5	16.5	12.5	43	4.0	4,200	£ 1,000,000
Prostatectomy	4.7	4.1	3.1	51	1.3	3,800	£ 900,000
						171,500	**£ 42,700,000**

The Future is bright….
The future is Enhanced Recovery

- Webpage – Available now on 18 week website
- MSK Repeat Audit April 2011– report available late summer
- Clinical Skills Course – Late Summer
- Quality and Efficiency
- Pan-UK Database collaborations
- Future research

Readmissions trend

NHS
Enhanced Recovery Partnership Programme

Emergency readmissions following selected operations, HES as a percent of patients receiving the operation

	Jan - June 2009	July - Dec 2009	Jan-June 2010	Jan-March 2010	April-June 2010	
Hips	7.3%	7.1%	6.4%	6.5%	6.4%	Down
Knees	7.3%	6.9%	7.1%	7.1%	7.1%	Unchanged
Colon	11.2%	10.8%	11.5%	11.4%	11.5%	Up
Rectum	14.5%	14.9%	14.5%	14.4%	14.6%	Unchanged
Hystectomy	7.5%	7.9%	7.9%	7.7%	8.1%	Up
Cystectomy			17.9%	18.6%	17.1%	Down
Prostatectomy			10.9%	11.2%	10.6%	Down

ERAS within HMC – working towards Transformation
A Health Systems Perspective

- **Aim:** To raise the profile, promote the benefits and inform the uptake of enhanced recovery for elective surgical care across HMC.

- Improve the quality of patient experience, clinical outcomes and reduce length of stay within elective care pathways across HMC.

- **Approach taken:** Recognition that we need to take a systems view and design solutions that recognise the nature of healthcare organisations – the need to move beyond piecemeal change and instead design entire system approaches to change.

- **Design and build resilient, high-reliability patient care teams** (which put patients' needs first) and replicate these across the whole organisation.

At the start of our journey

In place… Clinical engagement, the will and desire to follow best practice. Recognition ERAS can achieve improvement in quality of care & patient experience

However…

- Peri-operative practices not standardized, models of care variable informed by tradition, culture and norms
- Individuals and teams not seeing the continuum of care – what role do and can they play in the patient's journey?
- Understanding of multidisciplinary team work is variable
- Anecdotal examples exist but difficult to evidence due lack of good data
- Inhibiting environments can stifle innovation
- Patient & family expectations

Critical success factors for spread, adoption and sustainability

Implementation requires a number of factors:

- Changing clinical interventions
- Changing care systems and processes
- Creating a team to work across the patient pathway
- Both require technical and behavioural change management
- Start with thinking about who to engage and how to structure the project team

HHQI Improvement strategies

Capacity & Capability Building

- Staff education & Learning – Modules; General Awareness of ERAS, Benefits and Methods of Patient Education
- Targeted Training Needs Analysis
- Professional competency framework
- E-Learning / Website
- Mandatory requirement as part of staff orientation

Best Practice models

- Co-design ERAS clinical protocols
- Review current practice with international evidence – establishing a baseline
- Establishing pathways to optimise patient's journey: smoking, nutrition/ exercise, diabetes management
- Develop models of care for wider system and sub-specialty procedures
- Enabled discharge – home health services, mobile doctors, working with employees, charitable organisations

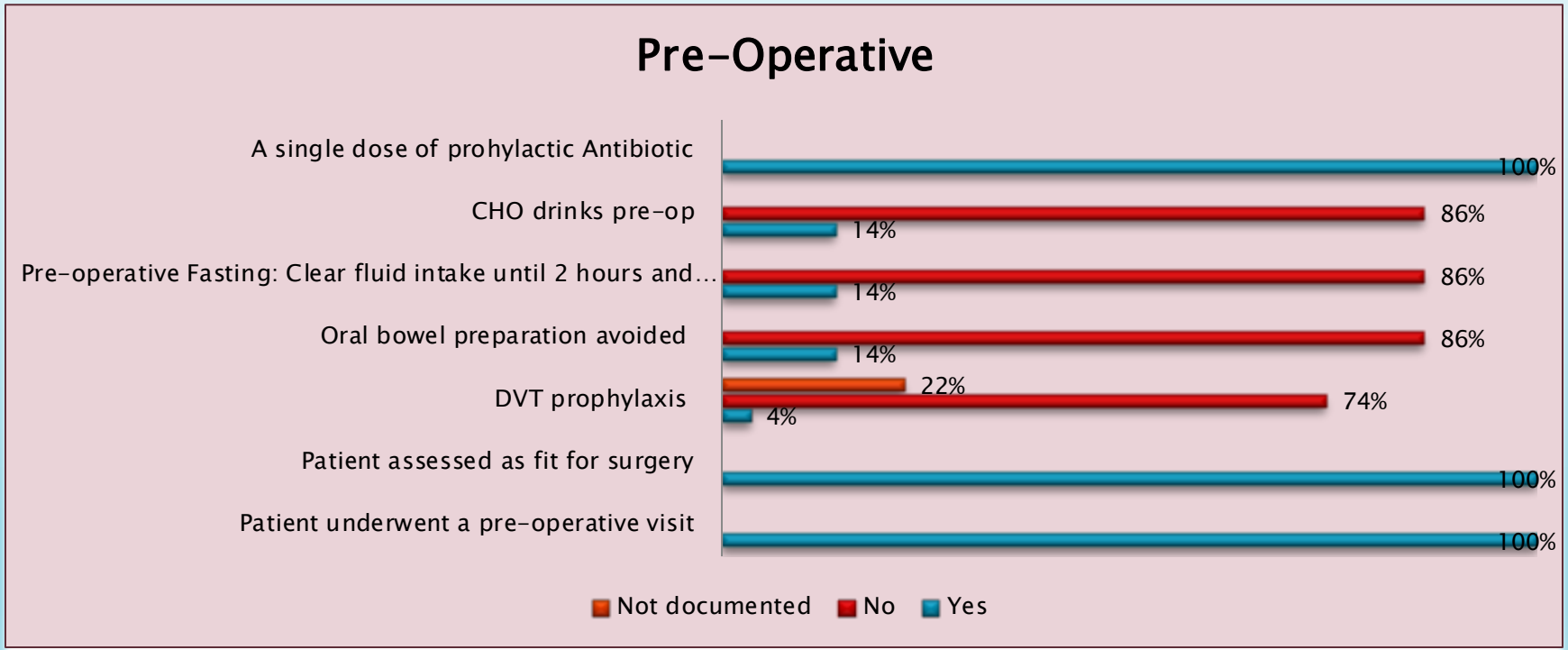
Humanizing healthcare

- HMC wide ERAS PFE group
- Patient consultation
- Patient Engagement Strategy
- Review of patient education – Decision Aids and Inpatient Survey, OPD presentations
- Improve pre-operative education/ preparation
- Group pre-op patient education sessions, peer led
- Communications campaign – addressing patient expectations, take responsibility for optimizing health pre-, op and recovery

High-reliability patient care team

- Governance – joint ownership, accountability and reporting (multi-disciplinary)
- Information management – establishing baseline, compliance audit, outcome indicators (LOS – clinical discharge)
- Standardisation of pre-operative assessment
- Integration with data system
- 'Team' structure – multi disciplinary working

Baseline Assessment



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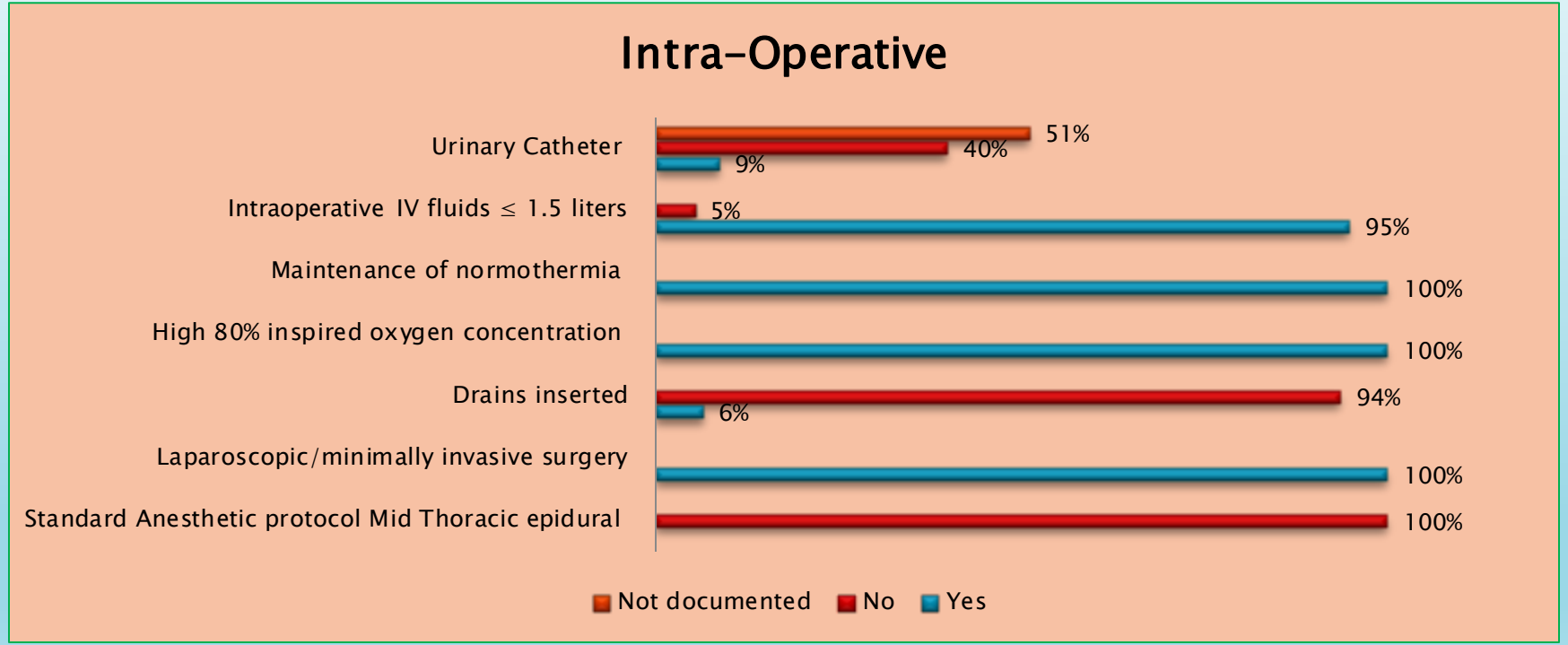

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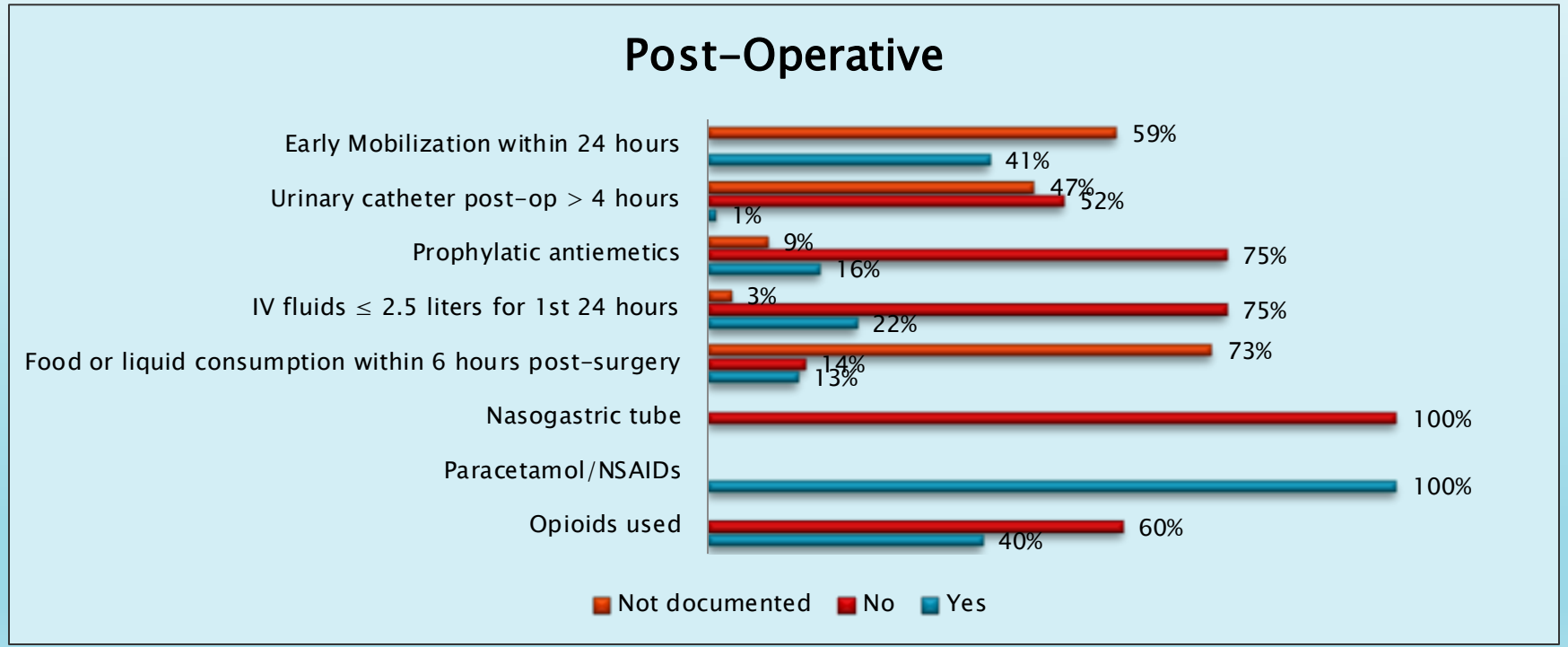

Recommendations from Patient Consultation

Provide full information about the planned surgery

- Be consistent in messages
- Break down information into user friendly language
- Benefits and risks of the operation or procedure should be clear
- Guidance and encouragement to ensure best health before the operation
- Ensure options for anesthesia and the effects are given
- Be clear on expected length of stay and post recovery from surgery
- Provide user friendly plan of treatment
- "Ask how I feel and involve me"

Challenges along the way…

- Where no governance, difficult to ensure accountability and access to wider infrastructure and resources
- Protocol alone cannot provide compliance
- Without robust data difficult to pinpoint where improvement strategies require review and revision
- Competing priorities – have a day job to do!

Lessons learnt so far in our journey

- Clear governance requirement
- Joint ownership creates mutual support and accountability
- Requires broader system support – the continuum of care
- Patient engagement – importance of effective patient education and promoting 'how to become an active partner in your own care'
- Creating safe environments for staff to reflect on progress, learning and address challenges together – create culture of improvement
- Teamwork and communication are critical to a culture of patient safety
- ERAS should be a dynamic process…real time feedback…with immediate results…

- **Clinical Impact:** Outcomes – Compliance – Patient Impact
- **System Impact:** – Spread & Scale – Economic Impact – Sustainability

Success for sutaianability

- Change is Clinically Led with Senior Management Support
  - Clinical leadership is crucial for successful implementation
  - Leaders are respected role models who can influence peers and other MDT members
  - Involvement and engagement of all members within the MDT is required
  - Project management, Change management support needed
  - Senior management support and engagement is an ongoing process, and not just at the outset of the implementation process
- Ethos of the Clinical Team
  - Celebrate the success of your work and achievements
  - Show mutual respect and value the different and complementary roles of the MDT members
  - Engage in the top tips for patients
- Organisational Culture
  - Support the ‘can do’ culture that empowers and enables clinical teams to test new ways of working, without fear, risk or blame
  - Share the strong relationships between managers and clinicians with quality & safety being high on the executive agenda

To end with…

- “This [ERAS] can be successful when everyone on the inter-disciplinary team see not only the patients from their side but collaborate with other teams for individualised care for patients – not only here in our hospital but across HMC as a whole” (Staff Nurse)


Topps Tiles
Topps Tiles