Ambulatory Upper Limb Surgery Under Local Anaesthesia Alone – Comprehensive Application Across 2 Centres to:

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(1) IMPROVE PATIENT OUTCOME
High patient satisfaction 87%

(2) OPTIMIZE THEATRE USAGE
Reduce floor time by 45%

(3) IMPROVE COST-EFFECTIVENESS
Cost reduction HK$1.1 million
The challenges we face:

ANAESTHETIST SHORTAGE
Attrition rate 7%, 5th highest specialty

LONG EMERGENCY THEATRE WAITING TIME
LONG ELECTIVE THEATRE WAITING TIME

S spine surgery – 2.5 yrs; Joint replacement – 9.5 yrs

HIGH BED OCCUPANCY

OBVIATE THE NEED FOR ANESTHETISTS
SAVE EMERGENCY THEATRE SLOTS

IMPROVED OUTCOME

HIGH BED OCCUPANCY

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Introduced for:

1. Complex hand fractures
2. Nerve surgery (cubital tunnel syndrome)
3. Tendon surgery (repair, transfer, graft, revision)
4. Hand and wrist arthroscopy
5. Many others...

The solution (since 20...
The scope of LA procedures in PWH and AHNH

- Simple fracture
- Carpal tunnel release
- Trigger digit release
- Excision of lesion, debulking
- Others (finger amputation, nail surgery, infection)
- Nerve tumour
- Tendon surgery
- Skin graft and flap, ligament repair
- Joint or skin contracture release, fasciectomy, fasciotomy
- Hand & wrist arthroscopy
- Nerve surgery (repair, neurolysis, decompression, transposition)
- Complex fracture, osteotomy, graft, joint fusion

Conventional cases = +714 cases

Our Extended application of LA = 152%
Hand and Carpal Fracture Fixation (n=222)

Cubital Tunnel Decompression (n=73)

Tendon Surgery (n=237)

Review of 3 common hand surgery procedures done under GA or LA:
From Jan 2015 to Dec 2017

264 GA, 268 LA procedures: total 532

Cubital tunnel decompression with ulnar nerve release (in yellow loop, above) and partial resection of medial epicondyle (below) under LA

Triple tendon transfer for radial nerve palsy under LA
LA improves patient outcome by:

1. Allowing active intra-op assessment
2. Immediate education in-theatre, immediate rehabilitation

Highly tolerated in tendon transfer and cubital tunnel decompression surgeries:

Overall VAS pain score (over 100) 17.8

Overall patient satisfaction rate 86.7%

85% prefer to have wide awake LA for their next hand surgery

Minor complication 2.7%

Major complication 0%
Expanded use of Local Anaesthesia is effective and safe. It should be widely adopted for Hand Surgery across all Clusters.

Call to action

**COST PER CASE**

|        | GA: $8973.6 | LA: $219.4 |

**REDUCTION IN RECOVERY FLOOR TIME**

when comparing LA vs GA

44.9%

**REDUCTION IN THEATRE DURATION**

when comparing LA vs GA

30 mins

**IF LA CASES WERE DONE UNDER GA**

- If LA cases done under GA: $1.06 mil
- LA (now): $58,799

**Total cost savings**

HK$1.1 million

**GA: $8973.5**

**LA: $219.4**

**3.43 mil**

**2.37 mil**

**LA**

**IF LA CASES WERE DONE UNDER GA**