



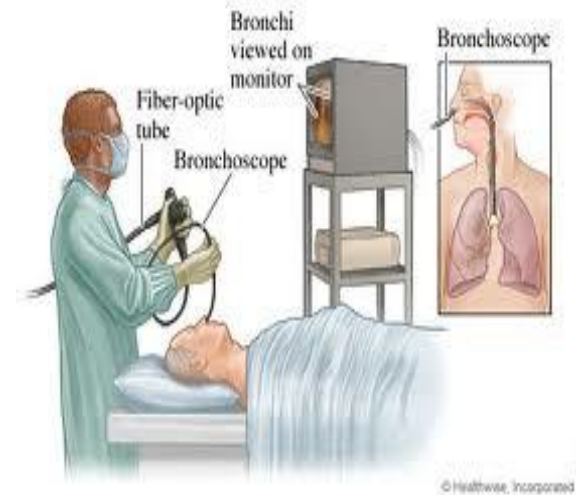
Procedural Sedation for Flexible bronchoscopy

Hospital Authority Convention 2013
Quality & Safety in Health Care
16 May 2013

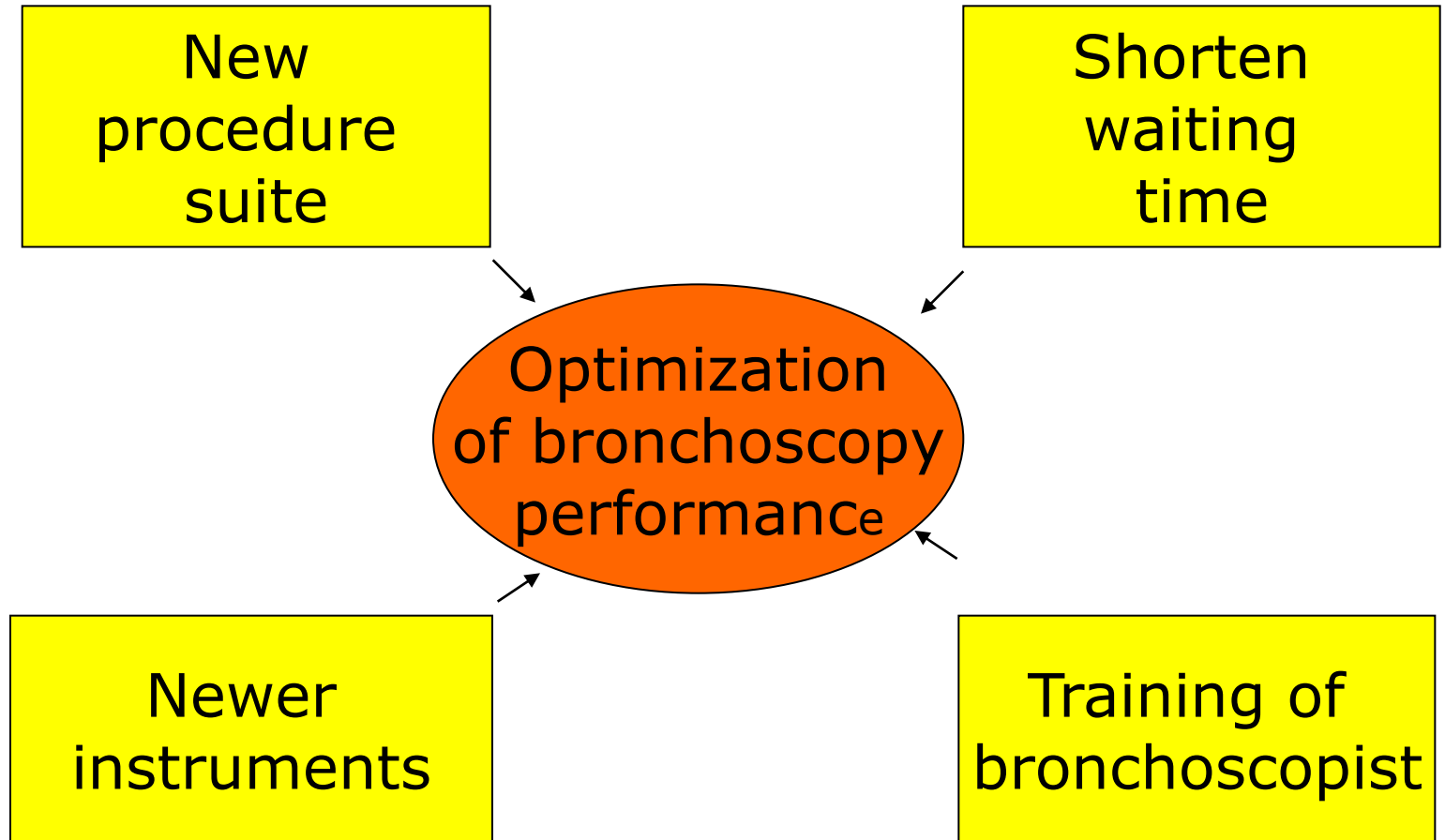
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Background

- More than 500 patients undergo flexible bronchoscopy in Grantham Hospital (GH) each year



Background



Background

- One important part has been missing



Background

- Patient comfort & satisfaction



Misconceptions

Misconception 1

- Chinese people are inert to pain & suffering
- Pain & suffering are inevitable during medical procedure



Misconceptions

Misconception 2

- Many of the complications associated with bronchoscopy, and up to ½ of the life-threatening events could be attributed to sedation



Hatton MQF. BMJ 1994

Conventional pre-medication

- Conventional practice was to give a shot of pethidine (a narcotic) intramuscularly by nurse as pre-medication at ward



Conventional pre-medication

- Patient had to be transferred to the bronchoscopy suite by gurney, accompanied by 2 health workers, due to the side effect of light-headedness & risk of fall



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Benefit of sedation

- Subsequent randomized studies have shown that sedation led to better tolerance of bronchoscopy by the patients

Maguire GP. Respiriology 1998

Putinati S. Chest 1999

*Gonzalez R. Acta Anaesthesiol Scand
2003*



ACCP Consensus Statement



CHEST

Consensus Statement

American College of Chest Physicians Consensus Statement on the Use of Topical Anesthesia, Analgesia, and Sedation During Flexible Bronchoscopy in Adult Patients

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ACCP Consensus Statement

- Equal safety record of sedation vs no sedation in bronchoscopy
- Patient's satisfaction & procedure tolerance significantly improved with sedation



ACCP Consensus Statement

- Sedation is suggested in **ALL** patients undergoing bronchoscopy unless contraindicated

Protocol of procedural sedation for flexible bronchoscopy in GH

- Oct - Nov 2011:
drafting, circulating among staff & finalization
- Dec 2011:
4 sharing sessions with nursing staff
Why, what, how

Protocol of procedural sedation for flexible bronchoscopy in GH

- Jan 2012:
Up to individual physician's discretion:
procedural sedation vs conventional
pre-medication
- April 2012
Procedural sedation is used in **ALL**
patients undergoing bronchoscopy
unless contraindicated

What have been changed

Conventional

- Pethidine given in ward by nurse

Procedural sedation

- The sedative & analgesic drugs given in the bronchoscopy suite by the bronchoscopist with titration of dose according to clinical response & tolerance



What have been changed

- Any adverse effect due to the medication (midazolam + fentanyl or pethidine) could be recognized & handled in a timely manner
- The dose titration approach ensures the optimal dose is given & avoids the unfavorable scenario of under/over sedation

What have been changed

Conventional

- Staff of different wards are involved in handling DDA (dangerous drug administration) & record keeping

Procedural sedation

- Only staff of the bronchoscopy suite involved

What have been changed

Conventional

- 1 supporting staff & 1 nurse escort the patient (after pre-medication in ward) to the suite by gurney

Procedural sedation

- 1 staff (supporting or nurse) accompanies patient to bronchoscopy suite



What have been changed

- The accompanying staff number is reduced from 2 to 1
- The patient transfer time from ward to bronchoscopy suite reduced as patient, not under the effect of any sedative medication, is fully ambulatory before the procedure
- Use of gurney no longer necessary



What have been changed

- A questionnaire survey was conducted on 80 patients having bronchoscopy under procedural sedation and 81 patients with the procedure done after conventional pre-medication



What have been changed

- More patients in the procedural sedation group were satisfied with the procedure (79% vs 42%)
- More patients in the procedural sedation group are willing to have the procedure repeated if need arises (71% vs 33%)



Key improvement

- Enhanced patient tolerance and satisfaction to bronchoscopy
- Enhanced patient safety
- Streamlining of logistics
- Manpower saving

Conclusion





Drawbacks

- Additional resources: venflons, syringes, NS..... for drug administration
- Additional cost for the drugs: difference of HKD 6 per patient
- Additional time: each procedure lengthened by 4 – 8 min

Conclusion



Thank you

