

ADHERENCE TO A FAST TRACK CLINICAL PATHWAY FOR VIDEO ASSISTED THORACOSCOPIC SURGERY: CLINICAL IMPORTANCE AND PREDICTORS

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OBJECTIVE: A Fast Track Clinical Pathway (FTCP) is increasingly often used to expedite patient recovery following Video Assisted Thoracoscopic Surgery (VATS). The importance and predictors of adherence to an FTCP have not been previously investigated.

METHODS: A defined FTCP was used for the perioperative management of 136 consecutive patients receiving major pulmonary resection surgery. The FTCP encompassed multiple aspects of clinical care, including: chest drainage; analgesia; mobilization; physiotherapy; investigations; etc.

RESULTS: The characteristics of this cohort are summarized in the Table. It was impossible to adhere strictly to the FTCP throughout the hospital stay of most patients. The rate of adherence to the FTCP for 50% or more of the duration of hospital stay was lower in patients who: were male (31.6% versus 48.3%, $p=0.047$); had a smoking history (25.9% versus 47.6%, $p=0.011$); and did not have absence of pain immediately after surgery (33.9% versus 59.3%, $p=0.016$). There were trends for poorer adherence amongst patients who had: age over 65 years; previous tuberculosis; body-mass index over 25; and longer operation times – but these just failed to reach statistical significance. The approach and extent of surgery did influence FTCP adherence. Adherence for 50% or more of the hospital stay was associated with reduced mean chest drain duration (3.2 ± 1.7 versus 5.1 ± 5.0 days, $p=0.002$) and mean length of stay (4.6 ± 1.9 versus 7.9 ± 6.6 days, $p<0.001$). Amongst smokers, adherence for 75% or more of the hospital stay was particularly well predicted by better pain control on the day of surgery, and was in turn associated with a significant reduction in morbidity rate (7.7% versus 39.0%, $p=0.043$).

CONCLUSIONS: Good adherence to an FTCP may allow faster recovery after thoracic surgery, but is often difficult to maintain postoperatively. Predictors of poor adherence include male gender, smoking history and immediate postoperative pain. Smokers are at particular risk for failure to adhere, but paradoxically have the most to gain from the FTCP.

Median Age (years)	61 (range: 14-84)
Male	76 (55.9%)
Smoking history	54 (39.7%)
Cardiac disease	10 (9.6%)
Tuberculosis (active or confirmed history of)	21 (15.4%)
Single Lobectomy	66 (48.5%)
VATS approach used	113 (83.0%)
Mean Operating Time (mins)	176 ± 91
Mean Blood Loss (ml)	94 ± 148
Mortality	0 (0.0%)
Morbidity	29 (21.3%)

Median Chest Drain Duration (days)	3 (range: 1-29)
Median Length of Stay (days)	5 (range: 1-44)
Adherence to FTCP:	
. throughout duration of hospital stay	9 (6.6%)
. for 75% or more of duration of hospital stay	24 (17.6%)
. for 50% or more of duration of hospital stay	53 (39.0%)