

IS THE ENGLISH NATIONAL TRAINING PROGRAMME FOR LAPAROSCOPIC COLORECTAL SURGEONS (LAPCO) VALUE FOR MONEY?

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In 2006 the National Institute for Health and Care Excellence (NICE) issued guidance that laparoscopic resection is recommended as an alternative to open resection for individuals with colorectal cancer in whom both laparoscopic and open surgery are considered suitable. Due to the lack of trained colorectal surgeons a waiver was issued. In 2007 the Cancer Action Team at the Department of Health instituted the national training programme for laparoscopic colorectal surgery (LCS) for colorectal consultants (LAPCO) in England. The intention was to provide all suitable patients with bowel cancer in need of resection, access to a trained surgeon for laparoscopic resection. Training was accompanied by educational assessment, which was organised by a group within the NTP at Imperial College London, led by Professor George Hanna. Our previous research showed LAPCO was effective as well as safe as a means of skill acquisitions.

Objectives

- to measure the **value of mentoring** from the cumulative differences in surgical performances of LAPCO delegates as compared to self-taught surgeons
- to assess if LAPCO is cost-effective from a **cost-saving** health sector (NHS) perspective

Data

- Self-taught surgeons**
 - 4,852 case records provided by 19 international LCS surgeons
- LAPCO mentored delegates during training**
 - 1,887 training cases prospectively collected using the standard Global Assessment Score (GAS) form
- LAPCO mentored delegates after training**
 - 729 cases voluntarily submitted by delegates who successfully graduated

Final LAPCO sample:

- 144 LAPCO delegates, with 48 delegates who successfully signed off

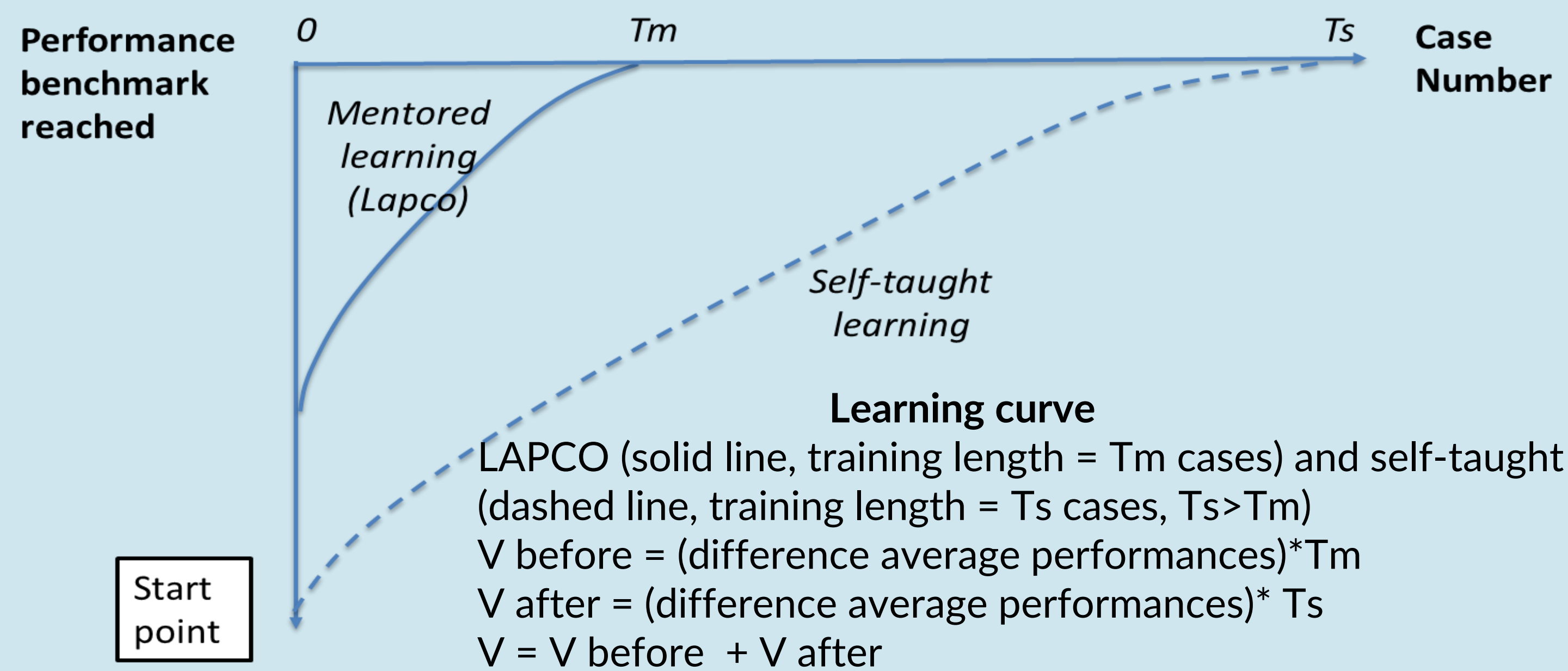
Conclusions

- The savings in LAPCO were worth were worth £1.8 million from reduced complications and £17 million from reduced length of stay.
- Savings exceeded the total costs for LAPCO which were estimated at around £6 million.
- Carefully designed and implemented surgical training programmes, though expensive in themselves, can be cost-effective due to better patient outcomes as well as a steeper learning curve compared to the self-taught modality of learning .

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Methods

Value of mentoring (V): effectiveness according to	Costs of training and cost saving for the NHS
Conversions from laparoscopic to open surgeries	costs of complications and cost of hospital bed day from literature
Surgical complications	LAPCO from the center
Length of hospital stay (LOS)	administrative office



Results

Faster achievement of performance benchmark

	Tm (LAPCO)	Ts (self-taught)
Conversion	17 cases	152 cases
Complications	17 cases	143 cases
LOS (assumption)	150 cases	

Improved outcomes

- fewer conversions from laparoscopic to open surgeries
- fewer surgical complications
- shorter hospital stay

Cost savings from reduction in complications and LOS

- complication cost at £8,662
- hospital bed day at £395

	self-taught	mentored before exit	mentored after exit	Total effectiveness (V = V _A + V _B)	Total savings per surgeon	Total savings LAPCO
CONVERSION	8.75%	5.00%	11.90%	-3.55	NA	NA
COMPLICAITON	15.93%	14.30%	15.00%	1.45	£ 12,550	£ 1,807,254
LOS	7	5	5	300	£ 118,500	£ 17,064,000

References

Hanna, GB., Mackenzie, H., Miskovic, D., Ni, M., Wyles, S., Aylin, P., Parvaiz, A., Cecil, T., Gudgeon, A., Griffith, J., Robinson, JM., Selvasekar, C., Rockall, T., Acheson, A., Maxwell-Armstrong, C., Jenkins, JT. Horgan, A., Cunningham, C., Lindsey, I., Arulampalam, T. Motson, RW., Francis, NK., Kennedy, RH, and Coleman, MG., on behalf of Lapco program. 2022. Laparoscopic colorectal surgery outcomes improved after national training program (LAPCO) for specialists in England. Annals of Surgery, 275(6), pp.1149-1155.