

**Report on the
BAUS Endourology Residential Operative Course
Pinderfields Hospital, Wakefield**



18th – 20 September 2013

Conveners

A J Browning

C S Biyani

S Symons

Acknowledgements

We would like to thank

Visiting Faculty members

Mr Adebajji Adeyolu, Consultant Urologist, Stepping Hill Hospital, Manchester
Mr Jon Cartledge, Consultant Urologist, St. James's University Hospital, Leeds
Mr Jonathan Glass, Consultant Urologist, Guy's Hospital, London
Dr James Lenton, Consultant Radiologist, Pinderfields Hospital, Wakefield
Mr Andy Myatt, Consultant Urologist, Castle Hill Hospital, Hull
Mr Neil Oakley, Consultant Urologist, Royal Hallamshire Hospital, Sheffield
Mr Naeem Soomro, Consultant Urologist, Freeman Hospital, Newcastle
Mr K Subramonian, Consultant Urologist, Queen Elizabeth Hospital, Birmingham

Simulation Team

Ms Felicity Reeves, Urology Sim Fellow, Yorkshire Deanery
Dr Adam Burns, Acute Medicine Sim Fellow, Yorkshire Deanery
Elaine Walters, Adam Smith, Zak Chopdat

Colleagues from Industry

Mr Luke Gordon	Storz
Mr Ray Barron	Storz
Mr Wayne Perkins	Olympus
Mr Lee Goodrick	Olympus
Mr Kevin Brown	Symbionics
Mr Paul O'Connor	Boston Scientific
Ms Rachael	Cook

Consultant anaesthetists – Dr Atkinson, Dr Rose, Dr Sandu, Dr Singh, Dr Radbourne

Hospital senior management

Theatre staff – Sister Hallas, Mr Bruce, Sister Kew and team

Urological colleagues from Pinderfields Hospital - Mr Harrison, Mr Weston, Mr Sundaram, Mr Jon Gill (str)

BAUS Section of Endourology and Margaret Joyce

Background

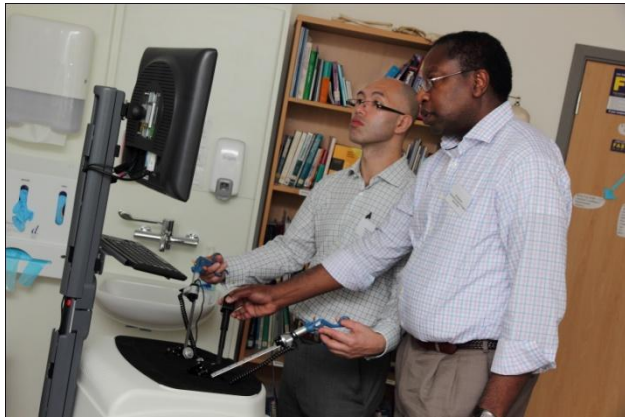
Residential operating courses offer a unique opportunity for trainees to develop their technical skills under the guidance and supervision of a faculty of experts in the field. The BAUS residential course runs annually, affording each of the four delegates the chance to undertake laparoscopic nephrectomy, laparoscopic pyeloplasty, percutaneous nephrolithotomy and rigid/flexible ureterorenoscopy. Application for the course is competitive, with priority given to final year trainees expressing an interest in endourology and upper tract laparoscopy. In 2013 the course was held at Pinderfields General Hospital, Wakefield, and the opportunity was taken to incorporate their state of the art simulation facilities as part of the course.

18th September 2013 (Simulation day)

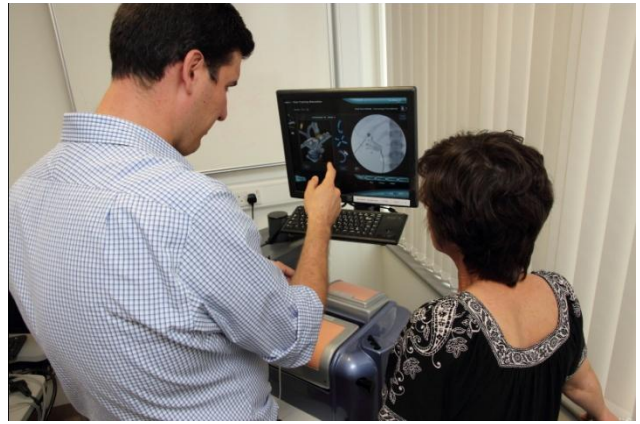
Challenges of operating in a new set up and with unknown people can be significant. In previous BAUS Residential courses this was even experienced by faculty members. We therefore organised a simulation day before actual operating days. We maintained the number of live operating cases by increasing theatre sessions, thereby, not diluting operating experience.

All four candidates arrived at the Education Centre, Pinderfields Hospital at 8:45 am. After a brief introduction they were asked to perform a laparoscopic nephrectomy on a LapMentor, flexible ureteroscopy and lasertripsy on UroMentor, percutaneous nephrostomy on UroMentor and laparoscopic pyeloplasty on a porcine kidney (Appendix 1). Prior to laparoscopic pyeloplasty, a 'warm-up' suturing exercise was done on a chicken leg in the form of a Y-V plasty.

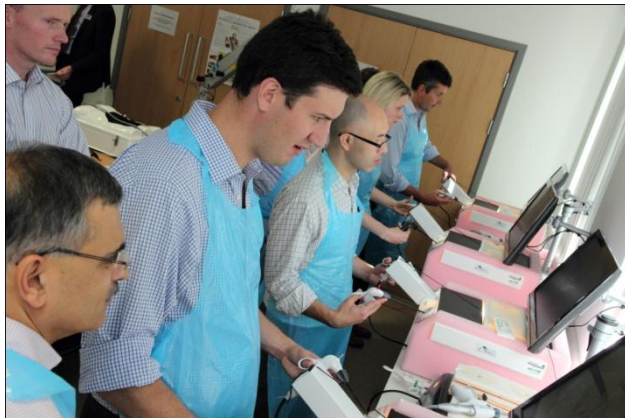
GAUSE scoring was used as an assessment tool during ureteroscopy (Appendix 2). Faculty members and the candidates were asked to complete the scoring sheet. All candidates were given an hour to perform these exercises. They were not familiar with the virtual reality simulators, therefore the first 15 minutes were spent familiarising themselves with the simulators. In addition, to assess non-technical skills, two scenarios were done on SimMan 3G. The first was a case of pneumothorax after a laparoscopic nephrectomy and the second scenario was bleeding after a PCNL. Furthermore, they were introduced to the theatre team. At the end of the day all delegates were taken to the operating rooms to familiarise themselves with the layout.



Laparoscopic nephrectomy on a LapMentor



PCN access on UroPerc Mentor



Laparoscopic pyeloplasty a porcine kidney



Lap suturing with 3D system (Storz)



Satisfied Faculty members & Trainees

We planned this day to ensure the safety and the educational merit of the “Live Surgery” undertaken in line with EAU live surgery policy. Patient safety in the operating theatre is paramount and should be considered the primary focus of any program or demonstration. Delegates were briefed about the operation they were going to perform on 19th September.

The advantages of this session were:

1. Delegates were allowed to develop a rapport with faculty members and theatre staff.
2. The session facilitated familiarisation with the hospital and theatre rooms.
3. The faculty were able to assess delegate’s technical and non-technical skills. This process helped the faculty to plan operating sessions and mentoring according to individual candidate’s skill level.

19th September 2013

All delegates and faculty members arrived at 7:30am. They were introduced to the patients with a nominated faculty member to re-consent for the operation. It was good to see that candidates went through all clinical notes, blood results and imaging with each faculty member. Following this they discussed technical aspects of the operation. We ran three theatres. For each theatre, the consultant anaesthetist was delegated the “patient advocate” and were fully aware of their pivotal governance role. In addition each of the 3 local faculty were allocated a specific theatre to provide ongoing support but did not participate in the surgery. All delegates followed the WHO safe surgery guidelines and performed Time out and Sign out on each patient. In two theatres, laparoscopic nephrectomy was done during the morning session and a PCNL was performed in the third theatre. As the PCNL finished early, an ureteroscopy was added before the second PCNL case. Assessment of ureteroscopic skills was done by using the GAUSE score and once again delegates self-assessed their performance. A Global Rating Scale (GRS) was used by the faculty members for laparoscopic procedures (Appendix 3). In addition, delegates were asked to self assess on the GRS. At the end feedback was given by the assisting faculty member. In the afternoon session delegates performed laparoscopic pyeloplasty in two theatres and another PCNL in the third theatre. All delegates managed to complete operations, apart from one laparoscopic nephrectomy which required a faculty member to complete the operation due to complex vasculature. We finished all sessions by 6:00 pm.

20th September 2013

We followed the same routine on the second day. Unfortunately the fourth PCNL case was cancelled due to bradycardia. We had kept a few patients as stand-by and managed to replace the fourth PCNL case with three ureteroscopies. We finished operating at approx. 6:00 pm. All delegates and faculty members were asked to fill in a feedback form.

Course Assessment and Evaluation

It was decided to assess all trainees during a simulation setting and at live operating sessions. Assessment tools were used for ureteroscopy and laparoscopic procedures (Appendix 2 & 3). Trainees were encouraged to use similar tool to self assess their performance (Appendix 4). It is

interesting to note that trainees underestimated their performance. Trainees were given opportunity for course evaluation through the feedback on simulation session (Appendix 5) and generic evaluation form (Appendix 6) on organisation, course value, accommodation etc. In addition, self assessment of knowledge and skills pre and post course was collected. Faculty members were also asked to complete a generic evaluation form.

Correlating feedback with assessment & evaluation outcomes

Residential operating courses are extremely valuable training opportunities for trainees. Not only is there the chance to further their own technical skills, but also to observe and learn from experts in the field in a different operating environment. Unique to this year's course, the introduction of a simulation day provided an excellent platform for all concerned going into the two days of live operating. This ensured optimal patient safety, and created a more relaxed and productive theatre environment. All trainees supported this concept and simulation session was highly rated. We therefore suggest that it becomes a standard for the future.

What could have been better? Feedback on the course was very positive, with one or two area that needs to be reviewed. Unfortunately one trainee encountered slight complex surgical anatomy in two of his cases. This is difficult to predict but one should look at the various patient's factors to keep surgical procedures simple. It was also suggested by trainees that it would be easier for a trainee if the visiting faculty members are more adaptive. This would encourage "trainee's to use their own techniques and skills" rather than "mentor's my way" (Appendix 7 and 8).

Appendix 1



BAUS residential course simulation day programme

Wednesday, 18th September 2013

Trust HQ & Education Centre, Pinderfields Hospital, Aberford Road, Wakefield WF1 4DG

Time	Sim Scenario Sim Suite 2 AB/FR/Urology cons Mr T Browning Miss F A Reeves Dr A Burns	PCNL access Uromentor PG skills lab Miss S Symons	Laparoscopic nephrectomy Lap mentor U/G Bedroom Mr Adebanjo Mr S Biyani	Ureteroscopy Uromentor PG skills lab Mr A Myatt
08:45 – 9:00	Coffee & Registration		Post grad skills lab	
09:00 – 10:00	Candidate 1	Candidate 2	Candidate 3	Candidate 4
10:00 – 11:00	Candidate 2	Candidate 3	Candidate 4	Candidate 1
11:00 – 11:15	Coffee		First Floor	
11:15 – 12:15	Candidate 3	Candidate 4	Candidate 1	Candidate 2
12:15 – 13:15	Candidate 4	Candidate 1	Candidate 2	Candidate 3
13:15 – 14:00	Lunch		First floor	
14:00 – 14:30	Laparoscopic suturing PG skills lab	Laparoscopic suturing PG skills lab	Laparoscopic suturing PG skills lab	Laparoscopic suturing PG skills lab
14:30 – 15:30	Lap pyeloplasty animal model PG skills lab	Lap pyeloplasty animal model PG skills lab	Lap pyeloplasty animal model PG skills lab	Lap pyeloplasty animal model PG skills lab
15:30 – 15:45	Coffee		First Floor	
15:45 – 16:00	Feedback			
16:00 – 16:30	Theatre tour & close			

Appendix 2

Global Assessment of Urological Endoscopic Skills (GAUES)

Trainee _____ ST Level _____ Date:

Evaluator Identification _____

Instructions: Please read each action highlighted in grey. Evaluate the performance of each action according to the 1-5 scale listed below the stated action. Then write the corresponding score in the column labelled "score".

	Urological endoscopy technique	Score
U-IT1	Scope navigation/Safe Advancement <ol style="list-style-type: none">1. Not able to achieve goals despite detailed verbal guidance requiring takeover.2.3. Requires verbal guidance to completely navigate the urinary tract.4.5. Expertly able to manipulate the scope in the bladder/ureter autonomously and achieve farthest landmark as appropriate.	
U-IT2	Ability to keep a clear endoscopic field <ol style="list-style-type: none">1. Inability to maintain view despite extensive verbal cues.2.3. Requires moderate prompting to maintain clear view.4.5. Used irrigation and emptying optimally to maintain clear view of endoscopic field.	
U-IT3	Monitoring and management of patient discomfort during procedure <ol style="list-style-type: none">1. Not applicable.2. Does not quickly recognize discomfort or requires staff prompting to act.3. Recognizes pain but does not address sedation problems in a timely manner.4.5. Proactive assessment and management of comfort and sedation during.	
U-IT4	Landmark Recognition/Localisation of Instrument <ol style="list-style-type: none">1. Generally unable to recognise most landmarks.2.3. Recognizes some landmarks but generally poor perception of Instrument/Pathology location.4.5. Able to recognize all landmarks and clear idea of instrument/pathology location in relation to landmarks.	
U-IT5	Quality of examination/Visualization of urothelium <ol style="list-style-type: none">1. Could not perform a satisfactory exam despite verbal and manual assistance requiring takeover of the procedure.2.3. Able to visualize much of the mucosa but requires direction to re-inspect missed areas.4.5. Good visualization around and spends appropriate time on withdrawal.	

U-IT6	Pathology Identification/interpretation <ol style="list-style-type: none"> 1. Poor recognition of abnormalities (misses or cannot identify significant pathology). 2. 3. Recognizes abnormal findings but cannot interpret. 4. 5. Competent identification and assessment of abnormalities. 	
U-IT7	Therapeutic tool/laser/access sheath/stent selection <ol style="list-style-type: none"> 1. Not applicable. 2. Unsure of possible tool(s) indicated for pathology. 3. Able to identify possible appropriate tool choices but not sure which would be ideal. 4. 5. Independently identifies correct tool and settings as applicable. 	
U-IT8	Ability to perform Therapeutic Manoeuvre <ol style="list-style-type: none"> 1. Not applicable. 2. Performed with significant hands-on assistance. 3. Performed with minor hands-on assistance or coaching. 4. 5. Performed independently without coaching. 	
U-IT9	Ability to use fluoroscopy <ol style="list-style-type: none"> 1. Not applicable. 2. Below expectation 3. Borderline 4. Meets expectation 5. Above expectation 	
	Global Assessment	
GA-1	Trainees hands-on skills are equivalent to those of a : <ol style="list-style-type: none"> 1. Novice (learning basic scope advancement; requires significant assistance and coaching). 2. Intermediate. 3. Advanced. 4. Competent to perform routine cystoscopy / Ureteroscopy independently. 	
GA-2	Trainees cognitive skills (situational awareness (SA)/Abnormality interpretation/decision making skills) are: <ol style="list-style-type: none"> 1. Novice (needs significant prompting, correction or basic instruction by staff). 2. Intermediate (needs intermittent coaching or correction by staff). 3. Advanced (trainee has good SA, and interpretation/decision making skills). 4. Competent to make decisions and interpretations independently. 	
GA-T		

APPENDIX 3

GLOBAL RATING SCALE OF OPERATIVE PERFORMANCE

Date:

Name: Assessor

Generic skill					
A	Respect for tissue	1 Frequently used unnecessary force on tissue or caused damage by inappropriate use of instruments	2	3 Careful handling of tissue but occasionally caused inadvertent damage	4 Consistently handled tissues appropriately with minimal damage
B	Time & motion	1 Many unnecessary moves	2	3 Efficient time/motion but some unnecessary moves	4 Economy of movement and maximum efficiency
C	Instrument handling	1 Repeatedly makes tentative or awkward moves with instruments	2	3 Competent use of instruments although occasionally appeared stiff or awkward	4 Fluid moves with instruments and no awkwardness
D	Knowledge of instruments	1 Frequently asked for the wrong instrument or used an inappropriate instrument	2	3 Knew the names of most instruments and used appropriate instrument for the task	4 Obviously familiar with the instruments required and their names
E	Use of assistants	1 Use of assistants Consistently placed assistants poorly or failed to use assistants	2	3 Good use of assistants most of the time	4 Strategically used assistant to the best advantage at all times
F	Flow of operation & forward planning	1 Frequently stopped operating or needed to discuss next move	2	3 Demonstrated ability for forward planning with steady progression of operative procedure	4 Obviously planned course of operation with effortless flow from one move to the next
G	Knowledge of specific procedure	1 Deficient knowledge, Needed specific instruction at most operative steps	2	3 Knew all important aspect of the operation	4 Demonstrated familiarity with all aspects of the operation

TOTAL SCORE:

Trainees Objective Scores during Simulation and Live Surgery

Delegate	GAUES score: Ureteroscopy - simulation - 18/09/2013				
	Trainer name	Trainer score	Trainee score	Total possible score	Comments
1	Myatt	98%	88%	48	
2	Myatt	92%	79%	48	
3	Myatt	100%	98%	48	
4	Myatt	90%	88%	48	
Delegate	GAUES Score: Ureteroscopy - theatre - 19/09 + 20/09				
	Trainer name	Trainer score	Trainee score	Total possible score	Comments
1	Myatt	88%	75%	48	
2	Subramonian	85%	73%	48	
3	Subramonian	83%	96%	48	
4	Subramonian	92%	-	48	
Delegate	Global Rating Scale: nephrectomy - theatre				
	Trainer name	Trainer score	Trainee score	Total possible score	Comments
1	Oakley	89%	80%	35	
2	Soomro	63%	51%	35	
3	Adeyoju	77%	89%	35	
4	Cartledge	86%	77%	35	
Delegate	Global Rating Scale: pyeloplasty - theatre				
	Trainer name	Trainer score	Trainee score	Total possible score	Comments
1	Myatt	83%	66%	35	More complex than usual due to tight intra-renal pelvis.
2	Cartledge	63%	54%	35	
3	Oakley	94%	94%	35	
4	Soomro	57%	69%	35	Difficult case. A bit tentative, may be because not exposed to hook diathermy. No obvious issues. Needs more practice of pyeloplasty.

Appendix 5

Simulation Feedback Form

Please take a moment and complete all of the following before you leave.

Your feedback is very important to us.

Course Attended: BAUS Residential Simulation – 18th September 2013

Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The course was enjoyable	3	1			
The course was relevant to my work/ training	3	1			
The trainers were helpful and supportive	4				
I felt able to ask any questions I had	4				
The venue/equipment assisted learning	4				
The length of course was appropriate	3	1			
The course content and delivery pace was appropriate	4				
The course was well organised	4				
I would recommend this course to others	4				

Was any aspect of the course especially good?

Incredible opportunity to do upper tract endoscopic work with expert mentors on site.

Virtual lap nephrectomy console.

Excellent facilities, good time for tasks and number of mentors.

Simulation day – *great settler for all/opportunity*. Haptic simulation excellent. Opportunity to polish suturing for the afternoon/pyleoplasty.

How could the course be improved?

Could easily do double the length and still be fantastic – but I appreciate it would be resource heavy.

Lap consoles to be spread out more – a bit claustrophobic.

Bit more guidance/prebrief as to pt moulage... difficult (challenging scenario but I was unsure of exactly what we were trying to achieve).

Final Training Course Evaluation
BAUS Endourology Residential Operative Course
18th to 20th September 2013, Pinderfields Hospital
Wakefield, Yorkshire

**Instructions to Participant:**

Thank you for participating in this BAUS Course. In this feedback form, there are no WRONG or RIGHT answers. You do not need to put your name on this form – your responses are anonymous. Please respond to ALL the questions below to help us to improve the curriculum, training materials, and the conduct of the training.

For each item below, please circle only a single appropriate response.					
	NOT AT ALL				VERY MUCH
1. The training was well organized.	1	2	3	4	5
2. The accommodation, food and drink were adequate.	1	2	3	4	5
3. The host organisation was well prepared.	1	2	3	4	5
4. The patient governance and safety issues were addressed adequately by the host organization	1	2	3	4	5
5.. The faculty was receptive to participant comments and questions.	1	2	3	4	5
6. The selected cases were appropriate for my level.	1	2	3	4	5
7. There were appropriate mix of endourology and laparoscopy.	1	2	3	4	5
8. The training enhanced my knowledge and skills in endourology.	1	2	3	4	5
9. I expect to use the knowledge and skills gained from this training.	1	2	3	4	5
10. There was no pressure to complete the surgery in timely fashion.	1	2	3	4	5
11. The evaluation forms were simple to use.	1	2	3	4	5
12. I would recommend this training course to a colleague.	1	2	3	4	5

Self-Assessment of Learning: think about what you already knew and what you learned during this training about endourology and laparoscopy. Then evaluate your knowledge in each of the following topic areas **Before and After** this training.

1 = No knowledge or skills

3 = Some knowledge or skills

5 = A lot of knowledge or skills

BEFORE TRAINING					SELF-ASSESSMENT OF YOUR KNOWLEDGE AND SKILLS RELATED TO:	AFTER TRAINING				
1	2	3	4	5	Technical skills for endourology surgery	1	2	3	4	5
1	2	3	4	5	Knowledge of relevant anatomy and pathology	1	2	3	4	5
1	2	3	4	5	Problem solving in high pressure situation	1	2	3	4	5
1	2	3	4	5	Analysis of governance and leadership in national training courses	1	2	3	4	5
1	2	3	4	5	Designing and modifying a team approach to endourological care	1	2	3	4	5
1	2	3	4	5	Reflecting on your own practice and influencing others	1	2	3	4	5
1	2	3	4	5		1	2	3	4	5
1	2	3	4	5		1	2	3	4	5

Please prioritise any aspects that you liked about this course

1.

2.

Please prioritise any aspects that you think needs improvement

1.

2.

Thank you for completing this form!

Appendix 7

Trainees Feedback on the Course

1 = not at all, 5 = very much

	1	2	3	4	5
The training is well organised				1	3
The accommodation, food and drink were adequate.					4
The host organisation was well prepared.					4
The patient governance and safety issues were addressed adequately by the host organisation					4
The faculty was receptive to participant comments and questions				1	3
The selected cases were appropriate for my level			1	1	2
There were appropriate mix of endourology and laparoscopy				1	3
The training enhanced my knowledge and skills gained from this training					4
I expect to use the knowledge and skills gained from this training					4
There was no pressure to complete the surgery in a timeley fashion					4
The evaluation forms were simple to use				2	2
I would recommend this training course to a colleague					4

1 = no knowledge or skills, 3 = some knowledge or skills, 5 = a lot of knowledge or skills

	Before training					After training				
	1	2	3	4	5	1	2	3	4	5
Self assessment of your knowledge and skills related to:										
Technical skills for endourology surgery			2	2					3	1
Knowledge of relevant anatomy and pathology				4					4	
Problem solving in high pressure situation				3	1				2	2
Analysis of governance and leadership in national training courses			3	1					2	2
Designing and modifying a team approach to endourological care			1	3					2	2
Reflecting on your own practice and influencing others			2	2					1	3

Prioritise any aspects that you liked about the course

Organisation and forward planning of course: logistics and case selection.

Excellent facilities: simulation and pharma kit available.

Enthusiastic mentors, excellent at training and patient.

Helpful and keen theatre and hospital staff.

Good pointers/hints/tips for operating.

Simulation day/session very important in terms of knowing faculty and travelling etc.

Good focus on patient safety and clinical governance.

Casemix

Faculty support

Simulation

Meeting every patient before

Seeing patient on ward

Ability to 'run' theatre

Theatre staff

Hotel and dinners

The warm up day on the simulators was essential

The faculty were excellent teachers and experts in their own field

Theatre staff were very patient and welcoming

Excellent case selection

Good hospitals, curry and meal.

The uniqueness of trainees performing live surgery

The attention to governance

Positive affect of team working and camaraderie

Core endourological procedures included for pre-fellowship candidates

Simulation day was an essential starting point

Spotting potential colleagues of the near future

Involvement of industry

Sharing of skills and ideas amongst faculty

Please prioritise any aspects that you think needs improvement

Ask trainees what surgical things they will change.

Modulating approach to case b/w trainer and trainee so both feel comfortable

Would be better to know which operations you were doing on night before

Perhaps meet patients at clinical day before

Possibly easier cases (two thirds of mine were difficult for the mentor!)

Maybe could do 'trainees method' more

Could we do it every year?!?!?

The morning theatre preparation/patient consent felt a little rushed due to need to start promptly.

Clear patient advocate identification in team brief

Clarity over car parking arrangements

Faculty to see CVs of candidates, to see an idea of experience and areas to focus training

Appendix 8

Faculty Feedback on the Course

	1	2	3	4	5
The training is well organised					6
The accommodation, food and drink were adequate.					6
The host organisation was well prepared.					6
The patient governance and safety issues were addressed adequately by the host organisation					6
The faculty was receptive to participant comments and questions				1	5
The selected cases were appropriate for my level				1	5
There were appropriate mix of endourology and laparoscopy				2	2
The training enhanced my knowledge and skills gained from this training				1	1
I expect to use the knowledge and skills gained from this training				1	1
There was no pressure to complete the surgery in a timely fashion					4
The evaluation forms were simple to use					5
I would recommend this training course to a colleague					5

What did you like about this course

Trainee skill level was excellent, good patient case selection, very friendly helpful theatre staff.

One to one teaching, very enthusiastic organisers, supportive environment.

Fantastic selection of cases, friendly helpful theatre staff.

Appropriate case selection, theatre staff very willing to accept new ways of doing things, availability of kit and fast turn around time for instruments through CSSD, clear understanding among all that patient outcome must not be compromised by course.

What do you think needs improvement

Robot case?, Lap patient.

Prior information @ cases and operation sent to trainers, which would have helped us bring specific equipment