

Operating theatres can be daunting; even the uniforms we wear looks like PJ's! The purpose of this student welcome pack is to give you an insight into our working world and try to lessen the impact of this sometimes unfamiliar environment.

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Confucius said "I see and I forget, I hear and I remember, I do and I understand" but what does this mean exactly?



To be able to effectively facilitate your learning, it is important that we know you; identify your needs and learning style, this is your opportunity to focus on what you want to learn.

Honey and Mumford (1992) developed four learning styles based on Kolb's experimental learning through reflection on doing:

- The activist tries anything once, without bias
- The reflector watches and thinks and rethinks possibilities
- The theorist analytical, plans and models, uses a step-by-step approach
- The pragmatist problem-solver, links theory to practice, gets on with it

Identify your learning style; which one do you think you are? Discuss this with your mentor to help you get the best out of your time with us.

Our staff

Eye theatres are staffed by operating department practitioners (ODP), nurses and health care support workers. The department also has porters and housekeeping support. ODP's and nursing staff are collectively known as Theatre Practitioners. The medical staffs are mainly anaesthetists and surgeons. However as a teaching hospital we do have regular visitors to the unit in the form of medical students and people like you.

We are a professional but friendly bunch so there is no need to be shy. We actively encourage questions, as a student you may have plenty! We may not always have an immediate answer but if this is the case, we are happy to do some research or we can always find the answer to your question together.

Appearance

The patients' first impression of theatres is its personnel, and this maybe you, so please be mindful of their expectations and conduct yourself as a healthcare professional at all times.

Trust name badges must be worn. As a student, if you see someone who is not wearing a name badge and you are unsure of that person's identity please challenge them. If you feel uncomfortable about doing this then please report the event to anyone in the unit.

A wedding band and small stud earrings (without stones) may be worn. Dress jewellery must not be worn and body piercing will be discussed on an individual basis. Also please ensure that make-up, if worn, is appropriate for working in a clinical environment, that your nails are kept clean and trimmed neatly, perfume should be light too as many patient and staff are affected by strong perfumes. Finally hair should be kept clean and tidy, tied back if long; beards should be neatly trimmed or clean-shaven.

Dress code

Theatre attire is provided in the changing rooms (trousers and tops) and is laundered in accordance with hospital policy. It is specifically designed to reduce the spread of infection. For each shift a clean suit must be worn and in the event of soiling or contamination it should be changed as soon as possible.

Footwear is provided (by the university if you're an ODP) and should be cleaned by you at the end of each shift. Disposable theatre hats must also be worn at all times as hair should be covered and yes, this includes fringes. We do understand that these are not the most fashionable of items but remember we all have to wear them so you will be in good company!

Bags are not allowed in Theatre, where possible we will provide a locker (padlocks are not provided) but you should be aware that this is not always possible and therefore personal items should be kept to a minimum.

One final note, theatre attire should not be worn in any eating place other than the coffee room and they are not to be removed from the unit.

Theatre practice & etiquette

In essence this is a combination of four (4) factors:

- 1) Common sense
- 2) Good manners
- 3) Health and safety
- 4) Infection control

Please feel free to question any member of the staff regarding our practices as its only through questioning and research that we can improve. Below we have listed the most important points:

Accountability – we are all accountable for our actions and/or omissions to the following bodies and people:

- Healthcare Professions Council (ODP's) or the Nursing and Midwifery Council (Nurses)
- Our patients
- Our colleagues
- The Trust
- Ourselves

It is perfectly acceptable if you don't know to say that you don't know; it's not okay to undertake any duty if you have no knowledge or are not trained to do so. Admitting your limitations is not a fault it's a learning opportunity. As a student you should not be left unsupervised, if you have any concerns take time and discuss them with your mentor or a member of staff of your own choice.

Confidentiality – you must not discuss any patient or the treatment of that said patient outside of this department (including the coffee room). All patients' data is protected by law. Unless specifically agreed with the patient, it is inappropriate for you to be involved with the care of a neighbour, friend or relative. Remember a patient health and/or hospital care is a very personal thing; furthermore they may not want you to be aware of any health issues they may or may not have let alone any procedure they are about to undertake.

Hand washing – Please either wash your hands or use the alcohol gel provided in the dispensers when entering and leaving the theatres. This is to prevent cross infection. **Gloves should be worn at all times when in contact with patients.**

Noise levels – Theatre is a very interesting place, you will see lots of different machinery, instruments and procedures. We expect you to be inquisitive and ask lots of question however we must all be mindful of noise levels. Most of our procedures are done under topical or local anaesthesia. This mean that the patient (although sometimes sedated) can hear everything that is said. Therefore please be aware of what you are saying; the level at which you are saying it and avoid sudden noises.

Mobile telephones – Everyone has one, but keep it turned off! If you need to make a call then use the coffee room or use a public phone in your own time.

Messages – It is vitally important to relay any communication accurately. If you feel confident to answer a telephone or a bleep, state your location and grade, this enables the caller to establish whether they are talking to the right person.

Bleeps – To access the bleep system dial 15 followed by the bleep number you want and then the extension number of the phone that you are calling from (It is an automated system so instructions are given); replace the receiver and wait for the phone ring. Please do not walk away from the phone or allow someone else to use it, as it will be very frustrating for the person you have just tried to contact if they cannot get through!

Fire Alarms – Fire alarms are tested once a week on a Tuesday. You will hear intermittent bells ringing for about 20 seconds.

In the unlikely event of a real fire the alarm bells will ring continuously until the area has been made safe. An intermittent ring means there is a fire in an area near you.

In both cases please follow the advice of staff who have been trained in fire safety. If you discover a fire, please contact a member of staff or go to the nearest break glass point and raise the alarm.

Useful numbers and contacts

Internal			
Operator	100	Bleep operator	1010
Cardiac Arrest and other	2222	Dial a bleep	15
emergencies		(Follow instructions)	
Fire	2222	Health and Safety	8484
Hospital Chaplain	8514	Occupational Health	4156
Outside line	9	Travel wise	4133
Security Control Room	4122	Security Emergencies	3333

Shifts

Monday	08:00 - 18:00
Tuesday	08:00 - 18:00
Wednesday	08:00 - 18:00
Thursday	08:00 - 18:00
Friday	08:00 - 18:00
Saturday	08:00 – 18:00 (Alternative weeks) On call rota at all other times
Sunday	On call rota only

There are also late shifts in operation on designated Monday, Tuesday and Thursdays (See allocation for more details).

Sickness, Crisis, Family Illness

Should you be unable to attend your placement you should contact your University and your placement. You must ensure that you telephone as early as possible.

• Eye Theatre Office Number: 023 8120 4865

If you have diarrhoea or vomiting (or both) then you must remain away from placement for 48 hours once your symptoms has finished.

The Anaesthetic's Room

The unit has two anaesthetics rooms. It is very important that you do no use the anaesthetics room as a thoroughfare; if you do have to enter either room, then ensure that a patient is not being anaesthetised as to enter at any stage is very disruptive for the patient and the anaesthetist. Theatres should be entered and exited via the scrub area to maintain the correct airflow.

Basic Anaesthetic Drugs:

Induction Agents	Dose Presentation								
Propofol	2-3 mg/k	2–3 mg/kg 10 mg/r			ml				
Thiopental	3–5 mg/k				eware of antibiotics in 20 ml syringe				
Opioids		Dose	ose				Presentation		
Fentanyl*		1 mcg/	1 mcg/kg				50 mcg/ml		
Alfentanil*		10 mcg/kg					500 mcg/ml		
Morphine*		0.1 mg/kg					10 mg/ml		
Muscle Relaxants	Dose (I	Intubation) To		Top U	Гор Ups		Presentation		
Atracurium	0.5 mg	[′] kg Appr		Appro	oximately		10 mg/ml (stored in fridge)		
Vecuronium	0.1 mg	/kg		half	half		2 mg/ml		
Rocuronium	0.6 mg	/kg		intuba	ating		10 mg/ml (stored in fridge)		
Suxamethonium	1–1.5 r	ng/kg		dose			50 mg/ml (stored in fridge)		
Reversal for muscle	relaxants	Neost	tigmine	e 2.5 m	g + G	ilycop	yrronium 500 mcg		
Local Anaesthetics	Toxic Do	ose			For	Formulation / Max Dose			
Bupivacaine	2 mg/kg	5	0.25% = 2		5% =	2.5 mg/ml (Max dose 0.8			
					ml/kg)				
					0.5% = 5 mg/ml (Max dose 0.4 ml/kg)				
Lidocaine						0 mg/ml			
		6 mg/kg with adrenaline			2% = 20 mg/m				
Common Use		Dose			Presentation				
Emergency Drugs									
Suxamethonium	Laryngos		25–50 mg		50 mg/ml (fridge)				
Atropine*	Bradycar	dia	20 mcg/kg			600mcg/ml			
Glycopyrronium*	Bradycar	dia	200 mcg bolus			200 mcg/ml			
Ephedrine*	Hypotens	sion	3 mg	g bolus 30 m		30 n	ng diluted into 10 ml saline		
Adrenaline*	Suspecte	Suspected 50–10			.00 mcg boluses titrated to effect				
anaphylaxis 0.5–1			1 ml of	ml of 1:10,000					
Other Emergency Drugs									
Intralipid 20%	Local anaesthetic toxicity – initial dose 1.5 ml/kg IV over 1								
	min								
Dantrolene	Malignant Hyperthermia – initial dose 2.5 mg/kg IV (9 vials								
	for 70 kg Px)								

Please note:

Doses are for an average adult. They are provided as a guide to the usual range of doses for fit ASA1/2 adult patients only.

*= Titrate to effect.

There are many learning opportunities within this area below are just a few examples:

- The importance of communication and relieving anxiety
- Preparing the patient for anaesthesia, whilst maintaining patients dignity
- Identifying different methods and stages of anaesthesia
- Principles and practice of airway management
- How to apply patient monitoring equipment (ECG, NIBP, Sp02).
- Recognition and understanding of basic anaesthetic equipment and how it is used
- The importance of anaesthetic documentation

The Operating Theatre

We have two operating theatres equipped with many pieces of equipment which you may or may not have seen before. Please be careful when moving around the operating theatre and you must ensure you keep noise levels to a minimum.

Traditionally a theatre department is divided into three zones to control the spread of infection:

- The Dirty Zone (i.e. corridors, waste removal area)
- The Clean Zone (i.e. changing rooms, recovery room)
- The Sterile Zone (i.e. operating theatre, scrub room)

The walls, ceilings and floors are:

- Impervious to bacteria
- Able to withstand frequent chemical cleaning
- Curved joints for effective cleaning and drying

Air Quality & Ventilation:

- Positive pressure to keep contaminates away
- Good ventilation to minimise airborne contamination
- 15 to 25 air changes per hour

Laminar flow ventilation can provide around 400 air changes per hour (used for orthopaedic procedures).

Temperature & Humidity:

- Temperature should be maintained between 18°C & 22°C.
- Ideally humidity should be between 50% & 60%.

There are many learning opportunities within this area below are just a few examples:

- The importance of the WHO Surgical Safety Checklist and use within theatre
- Importance of documentation
- The roles of the different members of staff within the theatre environment
- Surgical scrub and donning of gown and gloves
- The principles and practice associated with the scrub practitioner
- The role of the circulating practitioner

The Recovery Area

The unit has a three bay recovery area. Hearing is the first sense to return following a general anaesthetic (GA) and therefore noise must be kept to a minimum within this part of the unit.

There are many learning opportunities within this area, below are just a few examples:

- The importance of patient safety
- Receiving handovers from scrub practitioners and anaesthetists
- Principles and practice of airway management in the post-operative patient
- ABCDE
- Understanding of normal and altered physiology in the post-operative patient
- Under direct supervision care for patients following general, local and sedation
- Handover of patient from recovery practitioner to receiving practitioner on ward

Minor Operation Room (MOPS)

The unit also manages a minor operations suite that is situated on B Level in the Outpatients department. The suite is adequately equipped for small procedures such as biopsies, removal of small lumps and epilation. A member of the theatre team works in conjunction with the medical staff to perform these small outpatient procedures.

Injection Suite

The unit also manages a very busy four bay injection suite that is suited on B level in the Eye Casualty department. It treats patient with Age-related macular degeneration (AMD).

AMD is a leading cause of blindness in the elderly and occurs when the cells of the macula become damaged and stop working, causing a loss of central vision. Although there is not currently a cure or treatment for the most common form of the condition, known as dry AMD, wet macular degeneration can be stabilised using a new class of drugs administered by injection called anti-VEGF agents. On average the unit treats approximately 80 patients a day.

Moving and handling



Moving and handling patients causes over a third of all workplace injuries. These include work-related musculoskeletal disorders (MSDs) such as pain and injuries to arms, legs and joints, and repetitive strain injuries of various sorts.

The term moving and handling covers a wide variety of activities including lifting, lowering, pushing, pulling and carrying. If any of these tasks are not carried out appropriately there is a risk of injury.

Talk to your mentor about the risks involved within theatres.

Hand hygiene

Hand hygiene is the most effective measure for preventing healthcare associated infections (HCAI). Hands are the most common way by which micro-organisms, in particular bacteria, can be transported, subsequently causing infection. It is therefore extremely important to practice good hand hygiene to ensure the safety of our patients.

Micro-organisms found on the skin can be described as:

Resident Flora

• Part of the body's normal defence mechanism. Rarely cause disease, however during surgery or other invasive procedures, resident flora may enter deep tissues and establish infection.

Transient Flora

Located superficially on the skin, readily transmitted to the next thing touched
 (Patients, laundry equipment etc). These are responsible for the majority of HCAI.

Three types of cleansing agent can be used to remove micro-organisms:

- i. **Liquid soap**: Adequate for most routine activities. Lifts transient micro-organisms from the surface of the skin and allows them to be rinsed off.
- ii. Alcohol hand rub/gels (with emollients): Used in place of soap and water (if hands are visibly clean). Great where hand washing and drying facilities are inadequate or there is a need for rapid or frequent hand washing. These agents have disinfectant

activity and destroy transient micro-organisms however if applied for an extended length of time, will destroy some resident flora.

iii. **Aqueous antiseptic solutions (surgical scrubs):** Based upon Chlorhexidine gluconate, povidone-iodine, and Triclosan. These lift transient micro-organisms and destroy transient and some resident micro-organisms.

Talk to your mentor about HCAI's within theatres.

Our commitment to you

As previously mentioned theatres can be an unfamiliar place to be. To address safety and belonging needs learners are orientated on day one by their mentor and introduced to the rest of the team. A discussion will also take place regarding your off duty so you know when you are next in! In addition to this, although not necessarily on your first day, your assigned mentor will sit down with you and establish your learning needs including timescales etc., and discuss anything that you may be want to achieve or are anxious about.

You are bound to have questions, ask someone, we are all here to help you. Who is that? What do they do? Some, if not all of the equipment used within the theatre you may have heard about but not have seen before, we will endeavour to explain it to you.

Get involved, there are a number of things you can safely do within the theatre environment from day one. Damp dusting the theatre at the beginning and close of play may not be lifesaving but is an essential part of patient safety. Learning how to document the patients' peri-operative journey accurately is paramount and part of your learning objectives. Removal of waste products in the appropriate manner is crucial as is securing a surgeons gown! However passing equipment to the scrubbed practitioner is a little more complicated but we will show you how to do that correctly, but maybe not on your first day!

Your commitment to us

We expect you to adhere to the term as outlined in this welcome pack and are respectful of the theatre environment and the people working within it. Remember that the most important person within the theatre is the patient, most of whom are awake, anxious or even frightened in varying degrees. Our personnel are always happy to help in the facilitation of your learning but we would ask that you always be mindful that we all have our jobs to do.

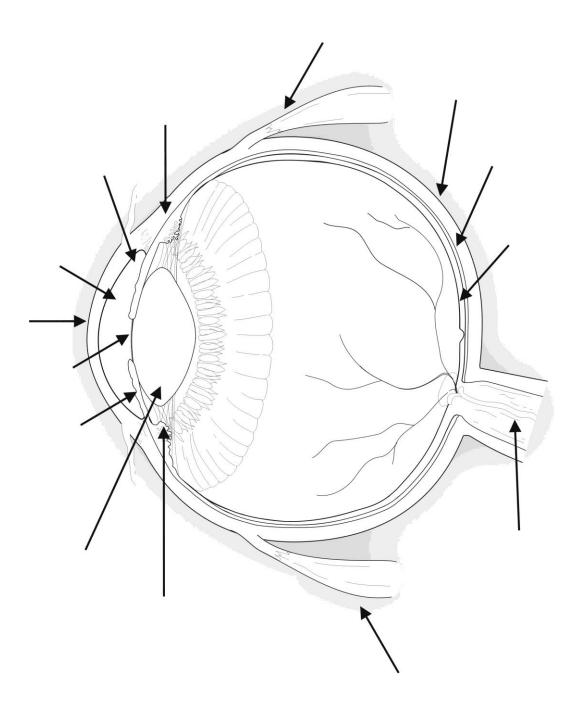
It is up to you to negotiate your off duty with your mentor/buddy and it is advisable to get your hours signed for at the end of each shift, your mentor is not responsible for you obtaining your hours, you are.

Negotiate your learning outcomes expected and work towards achieving them. Take an equal responsibility with your mentor to ensure that the initial, intermediate and end of placement interviews are carried out.

Do not be afraid to say no, as students we do not expect you to know everything or perform tasks that you are not either comfortable or competent in doing. However we do expect you to try new things under the close supervision of your mentor.

Clinical Anatomy and Physiology of the Eye

FIG 1: The eye in cross-section:



Please fill in and share your knowledge with your mentor.

The majority of patients come to the unit for day case surgery. This can include corneal or retinal surgery, ocular plastics or treatment for cataracts or glaucoma.

The eye short stay unit (ESSU) has four single rooms for people with a variety of conditions. These can range from severe eye infections to corneal ulcers which might require longer term care for up to a week. We also treat people who need intensive eye drops every half an hour.

Consultants within the Unit

Consultant	Speciality
Miss Amerasinghe, Nishani	Glaucoma
Mr Anderson, David	Corneal
Miss De Salvo, Gabriella	Medical Retina
Mr Hall, Nigel	Medical Retina/Uveitis
Mr Hossain, Parwez	Corneal
Mr Inzerillo, Dario	Medical Retina
Mr Jacob, Aby	Corneal
Miss Khan-Lim, Doreen	Oculoplastics
Mr Konstantopoulos, Aris	Corneal
Miss Krishnan, Radhika	Medical retina/Uveitis
Mr Lash, Steve	Vitreoretinal
Proff Lotery, A	Medical Retina
Miss Manners, Ruth	Oculoplastics
Miss May, Kristina	Paeds/Strabismus
Mr Papathomas, Thomas	Vitreoretinal
Miss Rennie, Christina	Medical Retina
Mr Sahu, Deb	Medical Retina
Mr Self, Jay	Paeds/Strabismus
Miss Siah, We fong	Oculoplastics
Miss Varga, Virag	Glaucoma
Miss West, Steph	Paeds/Strabismus

What did you say? Some common ophthalmic terminology:

Anterior Chamber (AC) The space between the cornea and iris

Aphakic Eye Eye from which the lens has been removed

Aqueous Humour Watery fluid, which circulates in the A.C. and drains

away at the angle between the cornea and the edge of

the iris

Astigmastism Irregular shape to cornea causing visual distortion

Binocular Vision Vision, where both eyes see the same image and

therefore have three-dimensional vision

Blepharitis Inflammation of the lid margins

Canaliculi The two passages from the puncta to the lachrymal sac

Canthus The angle formed by the juction of the eyelids

Cataract Clouding of the lens

Chalazion Cyst of the meibomian gland (oil producing glands in

eyelids)

Chemosis Swelling (Oedema) of the conjunctiva

Cilia Eyelashes

Conjunctiva Clear layer of tissue which lies over the white (sclera)

of the eye, and lines the inside of the eyelids

Conjunctivitis Inflammation or infection of the conjunctiva

Contact Lens A plastic or glass lens that sits on or over the cornea

(clear window of the eye)

Cornea Clear window at front of eye

Cycloplegia Paralysis of the ciliary (focusing) muscles

Cycloplegic Drop or drug which paralyses the ciliary muscles, also

dilates (makes bigger) the pupil

Diplopia Double vision

Ectropion Turning out of the lid

Entropion Turning in of the lid

Enucleation Removal of the eye

Epilation Removal of the eye lashes

Epiphora Watering of eye, due to excess tears

Evisceration Removal of the contents of the eye leaving the sclera

Exophthalmos Protrusion (bulging forward) of the eye

Extra-Capsular Extraction Method of cataract surgery where the capsule

surrounding the lens is partially left in place

Fundus Area of retina at back of eye including optic disc and

macula

Glaucoma Raised pressure in the eye

Guttae Latin term for eye drops often abbreviated as a G

Hordeolum A stye

Hypermetropia Long sighted i.e. wears glasses for reading but not for

distance

Hyphaema Blood in the anterior chamber

Hypopyon Pus in the anterior chamber

Iridectomy Removal of part of the iris

Keratitis Inflammation or infection of the cornea

Lachrymal Sac Tear sac

Limbus Junction of cornea and sclera/conjunctiva

Macula Area of the retina where the central sharp and colour

vision is focused

Miotic Drug used to constrict (make smaller) the pupil

Paracentesis Making a small hole with a needle in the edge of the

anterior chamber to reduce the intra ocular pressure

Photophobia Being sensitive to bright light

Proptosis Appearance of the eyeball protruding forward

Ptosis Drooping of the upper eye lid and sometimes eyebrow

Refraction Measuring a patients need for glasses

Strabismus Squint

Synechia The iris sticking to either the lens or the cornea

Tarsorraphy Stitching the eyelid edges together to protect the

cornea

Trichisasis Eyelashes growing inwards and rubbing on the eyeball

Uveitis Inflammation of the iris and or ciliary body (area the

lens is attached to behind the iris) and chorioid (layer of pigmented tissue underneath retina that absorbs

excess light)

Visual Acuity Measurement of the patient's vision. Measured at a

fixed distance i.e. 6 metres for distance and 15 cms for

near.

Visual Field Area of vision seen without moving head or eyes

Vitreous Jelly like substance, which fills the eye behind the lens

Other learning resources available:

Staffnet



There is a wealth of information available to you online via staffnet. Here you will find information about the hospital, policies and procedures, patient information leaflets and much more. Click and take a look for yourself you may find some pieces of information which will help you with an assignment or two!

Some HR policies you might like to familiarise yourself with:

- Alcohol and Drugs
- Appearance
- Complaints
- Data Protection
- · Eliminating bulling and harassment
- Health and Safety

The library

The Health Services Library is located on A level in the South Academic Block. It has a comprehensive selection of literature that may well be of use to you. Check staffnet for opening times and how to register.

Other departments within the eye unit:

As one of Southampton General Hospital's largest departments, the entire unit deals with around 90,000 patients annually through its eye emergencies, outpatients and inpatients and surgery departments.

The optometry department provides aids for the treatment of low vision conditions as well as contact lens fitting, and works alongside the orthoptics department to assess and treat a range of problems with eye movement and vision. We have a specialist children's eye service including family support.

The Eye Unit has around 200 highly-skilled staff who are experts in their field. They provide a comprehensive service for adults and children ranging from routine appointments to emergencies.

The Eye Unit is proud to have state-of-the-art equipment and facilities and is constantly developing new treatments for blindness.

Its strong links with the University of Southampton ensure that research into the causes and treatments for the most serious cases of previously untreatable blindness can be found.

As well as being the region's leading provider of eye care, the unit is also a major player in the research into and teaching of eye care.

Eye emergencies:

Southampton's eye casualty is run from a purpose-built building offering a 24-hour emergency service, the unit has a range of specialist equipment to assess and treat all kinds of eye conditions.

Why not take a look at Staffnet where you will find a heap of great information!

And finally......

We sincerely hope that you find your time here with us of real benefit to you and ask that you fill in the evaluation sheet at the end of this welcome pack. Please be as frank as you can, it is only by way of feedback (positive and/or negative) that we can improve the next students' journey.

Document History:

Date of Audit:	20/01/2017
Previous Audit:	30/05/2014
Date of next review	20/01/2018

Evaluation Form

	I am a:	Student	Nurse	→ Studer	nt ODP	Other	(Please s	specify)	
Please indicate your impressions of the items listed below. Strongly Agree Neutral Disagree Disagree									
					Agree	9 1.9.00		g	Disagree
	 I felt welcomed from the first day. My learning objectives were quickly identified and an action plan devised. My mentor/buddy was organized and easy to work with (Shifts etc.). My mentor/buddy was knowledgeable. The quality of instruction was good and I will be able to apply the knowledge gained. My participation and interaction were encouraged Adequate time was provided for questions/discussions/research. 			0	0	0	0	0	
				0	0	0	0	0	
				0	0	0	0	0	
				0	0	0	0	0	
				0	0	0	0	0	
				0	0	0	0	0	
				0	0	0	0	0	
	8. I felt supported throughout my placement.9. The student handbook was useful.				0	0	0	0	0
					0	0	0	0	0
	10. The placement met my expectations.			0	0	0	0	0	
11	. How do	you rate the	e placer	nent overa	all?				
	Excellent Good O			Avera O	Average Poor Very		poor)		
10. What aspects of the placement could be improved?									
11. What aspects of the placement did you find good?									

Thanks for your feedback......