

UNIVERSITY OF BRISTOL

FACULTY OF MEDICINE



VERTICAL STUDIES
MB ChB PROGRAMME

HANDBOOK 2013/14



CONTENTS

CONTENTS

Introducing Vertical Studies	3
Consultation and Procedural Skills (CAPS)	5
Disability, Disadvantage and Diversity (3D)	10
Ethics and Law in Medicine (Ethics)	18
Evidence Based Medicine and public health (EBM)	27
Medical Humanities and Whole Person Care (WPC)	31
Personal and Inter-professional Development (PAID)	36

INTRODUCING VERTICAL STUDIES

Welcome to this handbook. It is designed to give students and staff a clear outline of Vertical Studies in the MB ChB programme. Vertical Studies is the name given to the parts of the curriculum that run “vertically” – that is through all five years. Vertical Studies topics are typically relevant to all specialities and, with a few exceptions, are taught *through* other Units rather than as separate subjects. Vertical Studies is composed of six Vertical Themes (VTs) listed alphabetically with Leads as follows:



Consultation and Procedural Skills (CAPS)
Disability, Disadvantage and Diversity (3D)
Ethics and Law in Medicine (Ethics)
Evidence Based Medicine and Public Health (EBM)
Medical Humanities and Whole Person Care (WPC)
Personal and Inter-professional Development (PAID)

Dr Nick Maskell
Dr Hannah Condry
Prof Ruud ter Muelen
Prof Yoav Ben Shlomo & Dr Sarah Purdy
Dr Trevor Thompson
Dr Peter Fletcher

As you see, each of these VTs concerns subjects that apply to the whole of medicine. For instance all medical activity involves working in teams (PAID), all medical activity is concerned with research evidence (EBM) and all medical activity is governed by ethical principles (Ethics). Together Vertical Studies constitutes the formal aspect of students’ “Personal and Professional Development” (PPD). PPD is about the transition from being a member of the public to being a member of a profession with the rights and responsibilities that accompany that privilege. Our aspiration is to make that transition conscious, emotionally intelligent and enjoyable. In this we are guided by important publications from the GMC – particularly “Good Medical Practice” and “Tomorrow’s Doctors”.

Why Vertical Studies?

In terms of educational theory, VTs are a good means of “schema activation” - the process whereby new learning is facilitated by the prior awakening of old knowledge (schema) on the same theme. A common metaphor is that of “spiral learning” – of meeting the same concept at different levels of complexity as a course is followed. Take for instance in how the scenarios in consultation skills become progressively more demanding through the years.

Vertical Studies is an important way for the curriculum to communicate with itself and become more coherent. Imagine a Unit Lead in, say, Medicine or Surgery, trying to develop EBM teaching without being aware of what students had already covered in EBM elsewhere. By emphasising the vertical nature of disciplines like EBM there is more chance of integration and less chance of unhelpful repetition.

How Vertical Studies are Integrated

We call examples of Vertical Studies teaching “nodes”. Some nodes are run directly by VT leads and their associates. For example the Ethics teaching block within the Year 3 Psychiatry Unit. Others nodes exist as intrinsic parts of other Units. An example would be the MDEMO EBM poster presentations. Vertical Studies are also integrated through the SSC system, where students are encouraged to demonstrate their engagement with a variety of VTs in their SSC portfolio. For committed students there are also opportunities to pursue intercalation programmes in Ethics, International Health (3D) and Medical Humanities (WPC).

The Vertical Studies Committee

Vertical Studies is co-ordinated by a committee which meets three times per year. It comprises the Leads for each of the individual VTs and other invitees who make strong contributions to particular themes. The committee is chaired by Dr Trevor Thompson. Meetings are minuted and the minutes are forwarded to the CfME.

How this Handbook Works

In the remaining sections of this handbook individual vertical themes will explain the rationale for their theme, how the theme is organised, the overall content and how this breaks down on a year by year basis. Suggested reading is also provided.



An Overview of CAPS

Doctor-patient communication is paramount in making and explaining a diagnosis, finding out how an illness impacts on a patient and in discussion of treatment options.

Functioning well as a medical student and doctor in a team requires good interpersonal and communication skills. Even doctors without direct responsibility for patient care (e.g. pathologists) need to be able communicate effectively and accurately with clinical colleagues.

Moving onto procedures, whatever medical career we choose to pursue, we will all undertake procedures and one of the most important examples for health of our patients is measurement of blood pressure. Throughout your medical student time and after you qualify, there is a constant need to make changes in how we communicate and ensure competence in different procedures. The GMC document 'Tomorrow's Doctors' outlines the procedures medical students are expected to be competent in by the time of qualification in preparation for the Foundation year. Our curriculum for procedural skills is based on this document.

How CAPS is organised

As a vertical theme, learning in communication starts in your first year and develops further in year 2 where you will also be introduced to procedures. An important aim for the first 2 years for CAPS is for you to become more comfortable and confident in listening and talking with patients. The opportunity to learn more about CAPS greatly expands as you enter Years 3-5 and the Foundation years. In almost every unit you undertake, CAPS plays an integral role. In the early years, there are distinct sessions allocated to CAPS teaching whereas in the predominantly clinical years, CAPS takes place across all the year units.

Educational Methods used in CAPS

Consultation skills sessions (rehearsing patient scenarios with actors), small group teaching, lectures and one to one sessions with peers from medical or nursing background.

Main subjects covered in CAPS

EXAMPLE OF CONSULTATION SKILLS TOPICS ACROSS YEARS 2-5 INCLUDE

Communication from a professional perspective
Communication with Special Groups
Children/older people/disabled
Communication with formal and informal carers
Team communication Verbal and written record-keeping
Communication of Specific Information
Breaking bad news
Communicating risk
Understanding patient perspectives
Handling conflict
The angry patient
The difficult colleague

Procedural skills topics that will be covered across years 2-5

There are 15 diagnostic skills, 12 therapeutic skills and 5 general aspects of practical procedures in which all graduates must be competent. These will be taught and assessed throughout the 5 years. A log book will need to be filled in to record this activity and signed off by individual assessors throughout the course.

Exposure to these procedures will often be covered repeatedly throughout the 5 years to encourage familiarisation and improved technique

Diagnostic procedures

1. Measuring body temperature
2. Measuring pulse rate & blood pressure
3. Transcutaneous monitoring of oxygen saturation
4. Venepuncture
5. Managing blood samples correctly
6. Taking blood cultures
7. Measuring blood glucose
8. Managing an ECG monitor
9. Performing & interpreting a 12-lead ECG
10. Basic respiratory function tests
11. Urinalysis using Multistix

12. Advising patients who to collect a mid-stream urine sample
13. Taking nose, throat and skin swabs
14. Nutritional assessment
15. Pregnancy testing

Therapeutic procedures

1. Administering oxygen
2. Establishing peripheral intravenous access & setting up an infusion; use of infusion devices
3. Making up drugs for parental administration
4. Dosage & administration of insulin & sliding scales
5. Subcutaneous and intramuscular injections
6. Blood transfusion
7. Male & female urinary catheterisation
8. Instructing patients on the use of devices for inhaled medication
9. Use of local anaesthetics
10. Skin suturing
11. Wound care & basic wound dressing
12. Correct techniques for “moving & handling”, including patients

General aspects of practical procedures

1. Giving information about the procedure, obtaining & recording consent and ensuring appropriate aftercare
2. Hand washing (including surgical “scrubbing-up”)
3. Use of personal protective equipment (gloves, gowns & masks)
4. Infection control in relation to procedures
5. Safe disposal of clinical waste, needles & other sharps

Additional Two Bristol Skills

1. Bristol 1 Clinical Skill: Obtaining arterial blood sample for blood gas analysis
2. Bristol 2 Clinical Skill: Insertion of a Fine Bore Naso Gastric Feeding Tube

We feel that these are vital skills and, although not included in the GMC list, we have added these to our CAPS log book.

CAPS through the curriculum years

Early on in the curriculum, learning how to consult or undertake a procedure requires knowledge, practice and ability to seek and deal with feedback. All these elements are introduced in the consultation skills and procedural sessions and become more challenging as you develop more competence. Knowing how to undertake a practical procedure is not only about the ‘hands-on’ component but also understanding how to do it accurately, when it should be performed and the variability that can be found in health. Explaining a procedure to a patient for their consideration and consent is also integral.

Year 1

You will meet patients in HBoM course and start to develop your communication skills by listening and eliciting patient stories and showing respect for their views and beliefs. You are likely to be exposed to, and discuss with your GP tutor, a range of specific issues including, for example, how doctors handle emotions and sensitive issues.

In the cardiovascular system block, you will be shown how to measure pulse and blood pressure and provide basic life support. There will also be an introduction to basic ECG waveforms. The measuring of temperature and oxygen saturation will also be taught.

Year 2

Introduction to clinical skills - at the end of which an assessment of basic proficiency in measuring blood pressure, pulse, oxygen saturation and temperature will occur. You will also be taught correct techniques for 'moving and handling' patients.

You will receive 2 small group sessions at the University, under the tutelage of the same experienced tutor and different actors, who will role play patients from primary and secondary care settings. You will start to identify and practice the **process** (the "how") skills that facilitate the understanding of patient's histories (the **content**, or the "what"): why a patient has sought help with which symptoms, and what other information might be relevant.

During system blocks the following will be taught and assessed:
Urinalysis with multistix (renal), Spirometry and peak flow measurements (respiratory)

Year 3

Clinical units and one University based, small group communication skills session, during which you will build on the communication skills learned in year 2, and start to develop higher level skills through role play with more challenging clinical scenarios, once again under the supervision of an experienced tutor working actors in patient roles

Procedural skills teaching in small group in clinical skills labs at the Academies.

Basic proficiency in venepuncture, managing blood samples, taking blood cultures, measuring blood glucose, performing an ECG, collecting an MSU, teaching inhaler technique and performing rectal examination on a mannequin will be taught. These skills will be examined in an OSCE at the end of Junior Medicine.

Year 4

Clinical units and communication skills teaching in Primary Care (COMP 2). The two University-based small group communication skills sessions aim to help you complete full consultations, incorporating "explanation and planning" as well as learning techniques to appropriately close the consultation. During this attachment sign-off of basic proficiency with subcutaneous and intramuscular injections will occur

Female catheterization will be taught and assessed in RHCN
Dosage and administration of insulin and use of sliding scales will be introduced during the Anaesthetic attachment

Pregnancy testing will be taught and signed off in the log book during your GP attachment. How to calculate and interpret BMI will also occur during this attachment

Year 5

Clinical units with an Academy-based small group communication skills working through four scenarios to test and challenge even the strongest communicators as well as a focus on palliative care and the revision and extension of clinical skills competence in senior medicine and surgery.

You will have the opportunity to practice venepuncture, taking blood cultures and managing blood samples during this attachment

During the surgical skills course proficiency in use of local anaesthetics, wound care and skin suturing will be assessed.

During Applied Clinical Sciences blood transfusion issues will be taught and assessed by the transfusion nurse.

By the end of year 5, all CAPS skills sign off should be in the log book and on the UMeP.

Contacts

VT Lead Dr Nick Maskell (Nick.Maskell@bristol.ac.uk)





3D World (Disability, disadvantage, diversity and global health)

Overview of 3D

Disability, disadvantage and diversity are three formidable components, all of which define the patient's environment, function and potential to live a fulfilling life. It similarly affects us as practitioners, and our own personal experience of these components will in turn determine our approach to this theme, and ultimately our practice. The 3D journey is therefore an exploration of beliefs and attitudes, as well as the acquisition of knowledge and skills.

Student involvement

Student input is very important in 3D teaching. Over the years 3D has been shaped by the enthusiasms and interests of students – for example the migrant health teaching was initially proposed by students and is now a key central teaching day in year three. Last year in response to the suggestion of students we introduced teaching for all second years on homelessness and health. We also have opportunities for students to get involved in teaching for example in the global health workshops. If you have ideas or would like to be involved then please do get in touch.

Main subjects covered in 3D

Disability

‘Disabled people do not necessarily want to be cured - they want to be respected, and they want to be healthy, on their own terms. The way to achieve this change of mindset is to listen to disabled people themselves, and to raise the awareness of healthcare students to better ways of working¹.’

- Models and Definitions
- Legislation
- Disability Equality
- Communication and working in partnership

Disadvantage

‘People with higher socioeconomic position in society have a greater array of life chances and more opportunities to lead a flourishing life. They also have better health. The two are linked: the more favoured people are, socially and economically, the better their health. This link between social conditions and health is not a footnote to the ‘real’ concerns with health – health care and unhealthy behaviours – it should become the main focus.²’

- Health Inequalities
- Social determinants of health

Diversity

‘Cultural diversity education is not simply the awareness of ethnic, racial or religious differences with respect to health outcomes, health beliefs and coping skills of specific cultural groups but include the

¹ Tom Shakespeare, Different Differences <http://www.bris.ac.uk/pip/framework.pdf>

² ‘Fair Society Healthy Lives’ the Marmot Review <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>

diversity of human experience. Cultural diversity education needs to be considered in the context of human rights, structural inequalities and social injustice.³

- Recognising diversity
- Developing cultural competence
- Communication (for example working with interpreters)

Global Health

‘An area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasises transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes population-based prevention with individual-level clinical care⁴

- Socioeconomics, the environment and health
- Migration and health
- Global burden of disease
- Human rights and ethics
- Global burden of disease

³ Dogra, N., (2009) Twelve tips for teaching diversity and embedding it in medical education [Med Teach](#). 31(11): 990–993.

⁴ Koplan, JP et al. “Towards a common definition of global health” *The Lancet*, Volume 373, Issue 9679, Pages 1993 - 1995, 6 June 2009

Structure of 3D teaching

In common with the other vertical themes there is some specific 3D teaching, but also that 3D themes emerge during all of your learning during the five years of your course. 3D week and the third year central teaching days and part of the year 4 primary care teaching is organised by 3D, and much of the teaching is organised by other departments.

The 3D lead is Hannah Condry, who is a GP in inner city Bristol. However Bristol pioneered teaching on disability led by people with disabilities, and this is a key element of the course. We have begun to expand this into other areas of the course for example some of the teaching on asylum issues being led by asylum seekers.

3D through the Curriculum Years

Year 1

Human Basis of Medicine

Each of the 3D elements are introduced. Concepts introduced in lecture format, and explored in tutorials. Invited speakers and patients participate in the lectures, sharing personal experiences.

Year 2

3D week

This involves teaching on all of the 3D elements and includes speakers from various backgrounds, workshops, and a community day where time is spent making a positive contribution to an organisation in Bristol. In 2013 this included prisons, cafés for homeless people and a school for children with disabilities.

Year 3

Central teaching days on Migrant Health and Global Health

Assessment

Written questions on 3D themes will be included in the end of year exam.

Intercalated BA in International Health

Year 4

COMP 1 Child Health

Lecture (in Introduction to Paediatrics series)

Disability Seminar,

Disability Study (involves visiting a child at home, and their nursery or school)

COMP 2 Primary Care

Disability Seminar – This includes teaching on disability issues including benefits and rights. There is then teaching on working with people with learning disabilities. This is followed by small group workshops with an opportunity to learn and practice consultation skills with people disabilities.

Reproductive Health and Care of the Newborn

Disability is explored here in the context of morbidity related to pre, peri, and postnatal factors.

Diversity issues are explored in the context of a high birth rate of children from non-caucasian parents, and the impact of this on families receiving care and professionals facilitating care.

Assessment

There is a disability themed OSCE in the fourth year exams.

SSCs

Deaf Studies

This is a second year SSC where you will be based in the Deaf studies department and learn some sign language and about Deaf culture and the health issues affecting Deaf people.

At Sea with Disability

Students in previous years have gone sailing on tall ships for a week with disabled people.

Integrative Medicine in the Inner City

This is an opportunity to learn about how health can be promoted in an inner city setting, and to make a positive contribution to this. <http://www.wellspringhlc.org>

General Practice in Special Circumstances

This involves placements with GPs working in homeless health, prisons and with asylum seekers

If you have your own idea for an SSC and need support from the 3D team please do contact Hannah Condry (hc12559@bristol.ac.uk).

Year 5

Elective

'Medicine is your passport to the world. You can more or less go anywhere and be welcomed by your hosts to explore with them one of our most precious assets: health. As a health care student you will be trusted with your patients' intimate life stories and perspectives, allowing you to embrace a culture in a way no tourist ever will. With an open mind, the opportunities are endless, if not a little overwhelming. The first step to an amazing elective is to take the time to explore the oppor-

tunities the world of global health can offer.⁵

This year we hope to organise an optional session on global health issues for students planning their electives.

Some people have chosen to do their electives within Bristol and 3D have supported some students with that. For example we have helped a Bristol based elective on asylum seeker and refugee health. Another student chose to do an elective with the homeless health service and prisons in Bristol. Please do get in contact if you need any help with something similar.

Assessment

In 2013 there will be a disability OSCE in the final examinations.

3D Reading list

Reading lists will be provided for each specific teaching session.

There are some useful resources in the footnotes to this handbook. In addition, some suggestions for initial reading are below.

Oliver M **Understanding Disability from theory to practice**. Michael Oliver. (Macmillan Press Basingstoke 2009)

Shakespeare, Tom: **Disability Rights and Wrongs** (Routledge 2006)

Helman C **Culture health and illness** (Hodder 2007)

Lindsay, P Morrison J **Care of the Adult with Intellectual Disability in Primary Care** (Radcliffe 2011)

<http://www.gmc-uk.org/learningdisabilities/>

<http://www.hpa.org.uk/MigrantHealthGuide/>

⁵UCL elective pack http://www.ucl.ac.uk/igh/undergraduate/elective_info/electivepack.pdf

<http://www.medsin.org> - global health

Contact

Hannah Condry, 3D lead. I am really happy to be contacted by students with ideas, feedback or questions.

hc12559@bristol.ac.uk

3D week administration lead

chris.cooper@bristol.ac.uk





An Overview of Ethics

The course at Bristol adheres to the national “core content of learning” produced by the Medical Education Working Group of the Institute for Medical Ethics chaired by Professor Gordon M Stirrat, Senior Research Fellow in the Centre for Ethics in Medicine, University of Bristol. It has been agreed by teachers of medical ethics and law in UK medical schools that this core content of learning sets out a **necessary** core of knowledge, skills, attitudes and behaviours for doctors of tomorrow. (*Journal of Medical Ethics*, 2010: 36; 55-60). It has also been endorsed by the GMC and BMA.

The core content of learning is based on the assumption that a foundation in medical ethics and law:

- is essential for students to become good doctors (the knowledge, skills and behaviours that define ‘a good doctor’ are set out in the GMC’s *Good Medical Practice*)
- is a necessary part of all clinical encounters and medical and public health interventions
- serves as a framework for understanding duties and responsibilities required for good medical practice
- underscores and explores the key importance in good medical practice of benefitting the health of individuals and populations whilst minimising harm in ways that respect autonomy and are just
- enables identification of ethical or legal issues in practice
- facilitates reflective and critical thinking on the practical application of the core content

The aims of teaching medical ethics and law are to enable students to:

- aspire to and be equipped for a lifetime of good practice and learning
- develop an awareness and understanding of ethical, legal and professional responsibilities required of them as students and doctors

- think about and reflect critically on ethical, legal and professional issues
- understand and respect the strengths and weaknesses of views different from their own while maintaining personal integrity
- acknowledge and respond appropriately to clinical and ethical uncertainty
- acquire knowledge to facilitate ethical decision making and clinical judgement that is morally, legally and professionally justifiable
- respond appropriately to new challenges in medical practice as a result of scientific advances (e.g. in genetics) and social changes
- integrate the necessary knowledge, skills, attitudes and behaviours into medical and professional practice

To fulfil these aims, there are twelve topics to cover within the five year curriculum. Ethics and Law at Bristol and the medical curriculum as a whole have been modelled on the GMC's requirements in *Tomorrow's Doctors*. This curriculum provides a solid introduction to ethics and law and a comprehensive discussion of the ethical issues raised by medical practice today. While all professionals will face some of the same issues on a daily basis, such as informed consent, some professionals who are specialists in certain areas of medicine often face issues that are more specific to their practice. The curriculum does not just cover the "core" concepts, but introduces all the contemporary issues in a way that is relevant to everyone whatever specialty they may wish to go into.

How the Ethics Vertical Theme is Organised

As technology advances day by day, we review this curriculum on an annual basis to ensure that our students are prepared for the experience of professional practice once they graduate. Changes to the whole MBChB curriculum may result in some topics being taught at different times from the following timetable, but the framework for teaching ethics will remain the same. The Centre for Ethics in Medicine also offers an intercalated BSc in Bioethics in the third year of the medical curriculum. Throughout the MBChB, students also have the opportunity to complete Student Selected Component (SSC) projects in ethics.

Educational Methods Used in Ethics and Law

There are a variety of ways in which students are encouraged to learn about ethics and law in medicine. They are expected to attend lectures and follow-up small group sessions, including contributing to class discussions and undertaking pre-reading. Self-directed study, peer presentations and additional of ethical and legal problems is encouraged. Where possible study periods are timetabled into the various courses, but students are expected to pursue their own areas of interest through extra reading, SSCs, or our intercalated degree – the BSc in Bioethics in year three.

Ethics and Law through the Curriculum Years

The list below shows the various substantive components of the curriculum, how they fit in with the wider medical curriculum, and in what year they are studied.

Foundations of medical ethics and law

Students should be able to demonstrate an appropriate and developing understanding of:

- methods of ethical reasoning that inform decisions in medical practice
- the legal and professional frameworks within which medicine is practised in the UK
- the importance, scope and implications of the doctor's duty of care
- the implications of the practice of medicine in a diverse, multicultural society
- the influence of values, assumptions, attitudes and emotions on their decision-making and practice

Students should be able to:

- consider, apply and reflect critically on the ethical and legal bases for clinical decisions
- identify values of different stakeholders involved in, or affected by, decision-making, including the student's own values

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 3: Psychiatry, Ethics and Law

YEAR 5: Oncology and Palliative Medicine

YEAR 5: Preparing for Professional Practice

Professionalism – 'Good Medical Practice'

Students should be able to demonstrate in practice:

- an understanding of and respect for the role, responsibilities and requirements of the General Medical Council (GMC) and its primary concern to promote the health and safety of patients.
- an understanding of:
 - the importance of trust, integrity, honesty and good communication in all professional relationships

- the need to accept personal responsibility and be aware of limitations of their practical skills or knowledge and to know how and where to seek appropriate help [including when abroad on electives]
- the need to maintain professional boundaries with patients
- issues raised by the religious beliefs of patients, students and other healthcare professionals and the role and limits of conscientious objection
- the need to recognise and avoid all forms of unfair discrimination in relation to patients, colleagues and other healthcare professionals
- areas of potential conflict of interest e.g. the pharmaceutical and medical equipment industries

Students should be able to:

- respond appropriately to clinical errors
- follow procedures for reporting adverse incidents
- adhere to legal and ethical responsibilities that protect patients

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 2: Clinical Attachment

YEAR 3: Psychiatry, Ethics and Law

YEAR 5: Preparing for Professional Practice

Patients – their values, narratives, rights and responsibilities

Students should be able to demonstrate a critically reflective understanding of:

- the differences between moral, legal and human rights and how these impact on professional practice
- the importance of the patient's dignity, narrative and perspective in the clinical encounter
- the rights and responsibilities of patients and possible justifications for limiting their rights
- ethical and legal aspects of the relationship between the interests of patients and their relatives/carers and, where relevant, how best to involve and respect the latter's views

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 3: Psychiatry, Ethics and Law

YEAR 5: Preparing for Professional Practice

Informed decision making and valid consent/refusal

Students should be able to demonstrate in practice an understanding of legal and ethical aspects of:

- informed consent, voluntariness and disclosure of diagnosis
- patient refusal of treatment
- the significance and limits of respect for patient autonomy
- recognition of the legal and ethical boundaries of the clinical discretion to withhold information

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 3: Psychiatry, Ethics and Law

YEAR 5: Oncology and Palliative Medicine

YEAR 5: Preparing for Professional Practice

Capacity and Incapacity

Students should be able to demonstrate in practice:

- an understanding of ethical and legal aspects of treatment for patients who lack capacity for a particular decision or who have capacity but are otherwise vulnerable
- knowledge of the legal criteria for establishing that a person lacks capacity
- an understanding of the ethical challenges and legal requirements of determining and acting in the best interests of patients who lack capacity
- an understanding of ethical and legal tensions between the interests of the patient, family and the community

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 3: Psychiatry, Ethics and Law

YEAR 4: Care of the Elderly

YEAR 5: Oncology and Palliative Medicine

Confidentiality

Students should be able to demonstrate in practice an understanding of:

- the concept of confidentiality and its legal, professional and ethical bases
- when it is legally, professionally and ethically justifiable or mandatory to breach confidentiality
- how to share confidential information within clinical teams appropriately
- legal and ethical aspects of the use, transmission and storage of electronic data
- good practice in sharing information with relatives and carers and recognition of potential ethical and legal tensions

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 3: Psychiatry, Ethics and Law

Justice and Public Health

Students should be able to demonstrate a critically reflective understanding of:

- legal and ethical issues involved in balancing individual and community interests in accessing healthcare resources
- local, national and international prioritization in relation to clinical decisions
- principles and criteria for just distribution of finite healthcare resources
- the role of the doctor as patient advocate
- the ethical and legal considerations in respect of patient responsibility for health
- the responsible use of resources in referral, investigations and prescribing

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

Children and Young People

Students should be able to demonstrate in practice an understanding of:

- the duty to respect the rights and interests of children and young people
- the legal and ethical aspects of the capacity of young people to consent to and refuse treatment
- the respective roles of parents/guardians, health care professionals and the courts in decisions about the treatment of children
- the ethical and legal issues in child protection

- the application of the duty of confidentiality to young people

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 2: Neurological Systems

YEAR 3: Psychiatry, Ethics and Law

YEAR 4: Reproductive Health and Care of the Newborn

YEAR 5: Oncology and Palliative Medicine

Mental Health

Students should be able to demonstrate in practice an understanding of:

- ethical, legal and professional implications of the care of patients with mental illness
- the implications of mental capacity legislation for clinical practice
- mental health legislation relating to compulsory detention and treatment
- the ethical and legal issues of restraint

You will encounter these learning opportunities in the following:

YEAR 3: Psychiatry, Ethics and Law

Beginning of Life

Students should be able to demonstrate in practice an understanding of:

- ethical and legal issues surrounding the status of the embryo and fetus; areas of contention and debate including possible maternal-fetal conflict
- concepts of personhood
- ethical, legal and professional aspects of contraception, artificial reproductive technologies, termination of pregnancy and neonatal care
- ethical issues associated with pre-implantation/pre-natal testing and embryo selection, genetic testing and screening after birth

You will encounter these learning opportunities in the following:

YEAR 1: Human Basis of Medicine

YEAR 2: Reproductive Systems

YEAR 4: Reproductive Health and Care of the Newborn

Towards the end of Life

Students should be able to demonstrate in practice an understanding of ethical and legal issues at the end of life including:

- dignity, patient choice, limits on respect for patient autonomy
- 'ageism', 'futility', sanctity and quality of life
- euthanasia, assisted suicide and withholding and withdrawing treatment e.g. clinically assisted hydration and nutrition, 'Do not attempt resuscitation' (DNAR) orders, and other advanced decisions about treatment
- the need to respond sensitively to patients at the end of life and to their families/carers
- respect for diverse cultural practices at the end of life
- the requirements for death certification and completion of relevant certificates and legal documents

You will encounter these learning opportunities in the following:

YEAR 1: Anatomy

YEAR 1: Human Basis of Medicine

YEAR 2: Neurological Systems

YEAR 3: Psychiatry, Ethics and Law

YEAR 4: Care of the Elderly

YEAR 5: Oncology and Palliative Medicine

Medical Research and Audit

Students should be able to demonstrate in practice an understanding of:

- the purposes and differences between research and audit
- ethical, professional and legal considerations involved in medical research and audit
- the importance of trust and integrity in research and audit
- ethical and legal issues in conducting and reporting clinical trials
- additional ethical and legal limitations on [boundaries of] research with children and other vulnerable individuals
- the situations when research ethics committee approval may be required and how to seek it
- ethics of research in developing countries
- potential conflicts of interests in relationships with the pharmaceutical and medical equipment industries

You will encounter these learning opportunities in the following:

YEAR 3: Psychiatry, Ethics and Law

YEAR 3: Essc

YEAR 4: Elective

Suggestions for Further Reading

Campbell AV et al. *Medical Ethics*. Oxford: OUP, 2005 (fourth edition)

Dickenson, D., Huxtable, R., Parker, M. *The Cambridge Medical Ethics Workbook*. Cambridge: CUP, 2010 (second edition)

Herring, J. *Medical Law and Ethics*. Oxford, OUP, 2008 (second edition)

Hope, T., Savulescu, J., Hendrick, J., *Medical Ethics and Law: The Core Curriculum*. Churchill Livingstone, 2008

Contacts

Vertical Theme Lead:

Professor Ruud ter Meulen (r.termeulen@bristol.ac.uk)

Teaching staff

Dr Zuzana Deans (zuzana.deans@bristol.ac.uk)

Dr Richard Huxtable (r.huxtable@bristol.ac.uk)

Dr Ainsley Newson (ainsley.newson@bristol.ac.uk)





An Overview of EBM and Public Health

Evidence Based Medicine (EBM) is defined as

“the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.”

You might think this is what all doctors do all the time but in fact there are many examples where doctors, with the best intentions, gave treatments that were harmful and vice versa did not use treatments which had been shown to save lives. For example, it has been estimated that the delay in introducing thrombolysis (clot-busting drugs) for heart attacks in the USA, even though there was already high quality evidence that they worked, resulted in as many avoidable deaths as the whole Vietnam war!

Public health is defined as

“Public health is about improving and protecting the health of groups of people (or 'populations') rather than treating individual patients.”

Public health is concerned with 'the bigger picture'. Public health includes actions to promote healthy lifestyles, prevent disease, protect and improve general health and healthcare services for their local 'population' – which could be a rural community, an entire city or even the global population. Public health reaches beyond the usual boundaries of NHS structures and includes national and local government agencies, local community and voluntary organisations, as well as academic institutions.

Whilst only a handful of students in any year will ever become epidemiologists, every student will need to read research papers to keep up-to-date as a good doctor and consider the impacts of health care decisions on a wider population level. The most important skill and attitude change we would like you to acquire over your medical training is a 'critical' attitude to what people tell you and what you read. Just because something is published in a book or an academic paper, does not mean it is correct. You should be able to question what you are told, know how to find answers to your questions or if they do not exist, consider how to design a study, which could answer your question. Some of you will go on to do MDs or PhDs, which may allow you to do that study. You therefore need knowledge to understand the concepts, skills to apply this knowledge to real clinical problems and an appropriate attitude to know when and when not to apply these skills. For those of you who already have "intellectual curiosity", you will find EBM something that you already do intuitively to some degree.

Medicine is a rapidly expanding discipline. It is likely that even between the first year of your course and the last, we will have changed some of the ways we treat our patients. It is a challenge for all practitioners to keep up-to-date. In addition, the challenges for health care locally, nationally and globally are constantly evolving. We hope that by the end of your MB ChB you will have learnt some valuable 'tools', which will sharpen and refine your clinical practice over many years. This is why EBM is a vertical theme that runs across all 5 years of the medical curriculum. It doesn't stop just because you have passed your exams.

How EBM and Public Health is Organised

The bulk of the teaching occurs in two blocks in years 1 and years 4. This teaching is led by staff from the School of Social and Community Medicine, though you will experience EBM and Public Health discussions with other staff in other departments as well as NHS clinicians on your attachments. The School of Social and Community Medicine reviews all its teaching activities on a termly basis through its Education and Learning Committee. In addition, units and elements meet at least 3 times a year to review and improve their courses and submit reports to the annual programme review. Major changes to the curriculum are discussed by CCG and MEC for approval.

Educational Methods Used in EBM and Public Health

The major approach to teaching EBM is through interactive problem-based tutorials. There are in addition some large group lectures and e-learning materials. Students also work independently (with supervisory input) on their internal SSC projects where they work through a clinical scenario by reviewing the literature and critically appraising the evidence to reach a clinically useful decision.

Main Subjects Covered in EBM and Public Health

- clinical epidemiological methods e.g. RCTs, cohort studies

- data interpretation: p-values, 95% confidence intervals, etc
- interpreting reasons for associations e.g. bias, confounding
- understanding how to rephrase a clinical problem into a PICO,
- understanding strengths and limitations around diagnostic, prognostic, therapeutic studies and meta-analyses
- principles of health economics and its use in clinical decision making
- Practice of public health and health inequalities
- Commission and priority setting
- Infectious disease surveillance
- Screening
- Health promotion
- Global health

EBM and Public Health through the Curriculum Years

Year 1

The clinical epidemiology element (part of the human basis of medicine unit) 11 x 2 hour sessions that are problem based and taught interactively and cover main principles of clinical epidemiology

Year 3

1ST weeks. 3 x 1 hour lectures introducing concepts.

Year 4

Epidemiology and Public Health element of COMP-I unit. Regular lectures and tutorial teaching taking EBM to a higher level and including an EBM SSC project.

Year 5

EBM and Public Health inclusion in MCQs and eMCQs for finals

Suggestions for Further Reading

Evidence-Based Medicine: How to Practice and Teach EBM (Book with CD-ROM) (Turtleback) by Sharon E. Straus (Author), W. Scott Richardson (Author), William Rosenberg (Author), R. Brian Haynes (Author), David L. Sackett

Contacts

Prof. Yoav Ben-Shlomo (Y.Ben-Shlomo@Bristol.ac.uk)

Dr Sarah Purdy (Sarah.Purdy@bristol.ac.uk)





An Overview of WPC

Medicine exists at a turbulent intersection between scientific and humanistic understandings of life. The WPC vertical theme exists to champion the human dimension. The curriculum has a natural and necessary tendency toward specialisation. The WPC theme reminds us that, whatever the diagnosis, it always exists within the life of “whole” person. In servicing this aim we draw illumination from the wealth of human endeavour that constitutes the “humanities”. This includes literature, philosophy, history and the visual arts.

How WPC is Organised

The main “node” for the theme is the Whole Person Care Element of the HBoM Unit in Year One. WPC is also represented in several popular SSCs, an intercalated degree, a symposium as part of the Central Teaching Days in year 3 and various aspects of the Palliative Care course in Year 5. The current Lead is Dr Trevor Thompson.

Educational Methods Used in WPC

WPC is more about who you are than what you know. Unsurprisingly then, lectures do not feature highly in this vertical theme. What lectures we have are interactive and include things such as eVoting. We have pioneered approaches such as speakers by video-link, live drama in the lecture-theatre and creative reflection on clinical cases. All WPC teaching involves clinicians who bring their practical experience to the classroom.

Outofourheads Website

www.Outofourheads.net is a rather fabulous and unique website in which creative work from nearly ten years of Bristol medical students is curated. Have a look, have a search and leave some comments!

Main Subjects Covered in WPC

The History and Philosophy of Medicine

If we take the ways of modern medicine as self-evidently valid, then we risk a two-dimensional view of medicine's past and its future. The history of medicine is a fascinating undertaking charting such things as the profession, the hospital, surgery, public health, women in medicine, medicine in warfare and the emergence of the NHS. The philosophy of medicine deals with difficult questions like "what is health?" and the validity of the claims of "evidence-based" medicine.

The Role of the Arts in Medicine and Medical Education

It is accepted that medicine is both art and science. The great artists tackle the same themes we tackle in medicine – birth, death, disease, suffering, loss and restitution. In WPC we use the Arts to teach the art of medicine. A simple example is "The Doctor" by Sir Luke Fildes which hangs in Tate Britain. Uniquely, at Bristol, we also encourage students to experience how their *own* creative abilities help deepen understanding.

Therapeutic Consultation

The CAPS VT deals with the consultation. In WPC we highlight the fact that medical consultations can be *in themselves* therapeutic (rather than only means to some other therapeutic end). We address "touchy-feely" enterprises such as conveying hope (*always*), dealing with patients that are hard to like, *active* listening and the judicious use of humour.

Holistic models of health

We all apply models to our understanding of sickness and its alleviation. For example, the term "biomedical *model*" is applied to the main mode of operation of western medicine. The WPC vertical theme seeks to equip students with a range of models that prove useful in certain situations. A simple example is *iceberg*: what presents on the surface may be a signal for a greater depth of predicament currently out of sight. That model is handy, for instance, in understanding some apparently trivial presentations in primary care. Recently we have started using systems theory to provide a firm theoretical foundation for holism in combined teaching with physiologists. A very useful aspect of systems theory is the concept of resilience. Good medicine promotes this.

Mind-Body Medicine

It is hard to overstate the importance of linking mind and body in the practice of good medicine.. The WPC vertical theme explores the links between mind and body through basic science, and clinical and sociological research. It also teaches practical methods for using the mind-body connection to improve wellbeing. Recently WPC has drawn on the insights of Mindfulness meditation.

Complementary Medicine (CM) and integrative medicine (IM)

Patients (including many doctors and students!) use CM. WPC tries to fulfil the GMC requirement that “graduates must be aware of the existence and range of such therapies, why some patients use them and how these might affect other types of treatment”. We cover the evidence base of CM and use the resources of Bristol’s NHS Homeopathic Hospital – one of five in the UK. We stress that CM is not intrinsically holistic and western medicine is not intrinsically non-holistic. Even if students never practice CM – its principles can inform the practice of medicine in important ways. In recent years we have drawn more on the idea of “Integrative Medicine” which is quite a large movement in the US and which seeks to synergistically combine conventional medications and surgery with nutritional, mind-body and CM approaches to foster recovery and resilience.

Global Environment and Human Health

The notion of “treating the whole” can be extended beyond the predicament of individual patients to the public health. The biggest whole we can influence is the earth itself. It is likely that medical professionals will, over this century, be involved in mitigating the effects of global environmental change and catastrophe. This VT is currently where these issues are highlighted.

WPC through the Curriculum Years

Year 1

In the GP attachment of HBoM students are able to submit creative work as part of their formal assessment. WPC is an element of the HBoM Unit. Over four afternoons, students learn about Holistic Models (systems thinking), the Art of Medicine, Therapeutic Consultation, Mind-Body medicine and Integrative Medicine.

Year 2

WPC is associated with SSCs in Doctors in the Movies (not currently active), Philosophy of Medicine, Sustainable Medicine and the Creative Arts in Healthcare.

Intercalation

Bristol offers a full BA degree in the Medical Humanities (principally Literature, Philosophy and History of Medicine) and a BSc Degree in International Health. Google “Medical Humanities Bristol”.

Year 3

We will offer, from 2012, “external” SSCs in Integrative Medicine. We are holding, for the first time in January 2013, a WPC Symposium, a part of the Year 3 central teaching days.

Year 4

WPC concepts form an important part of the COMP2 Unit (Primary Care) and there is also an SSC in “Integrative Medicine” which is run out of Wellspring Healthy Living Centre and an SSC entitled “At Sea with Disability” which is run by Dr Thompson and touches on WPC themes.

Year 5

WPC principles emerge in the Palliative Medicine block where students are involved with the care of the terminally ill.

Suggestions for Further Reading

- (1) Meadows D. Thinking in Systems: A Primer. London: Earthscan; 2009.
- (2) Greenhalgh T, Hurwitz B. Narrative Based Medicine. BMJ Books; 1998.
- (3) Pollan M. In Defense of Food. London: Penguin Books; 2008.
- (4) Porter R. Blood and Guts: a short history of medicine. London: Penguin Books; 2003.
- (5) Vickers A, Zollman C. ABC of Complementary Medicine. London: BMJ Books (2000).
- (6) Thompson T, Lamont-Robinson C, Younie L. 'Compulsory creativity': rationales, recipes, and results in the placement of mandatory creative endeavour in a medical undergraduate curriculum. Med Educ Online 2010 Nov 26;15. doi: 10.3402/meo.v15i0.5394.:10.

Contacts

VT Lead **Dr Trevor Thompson** (trevor.thompson@bris.ac.uk)



An Overview of PAID

This is the newest of the vertical themes identified by the Medical School. As with all vertical themes it runs across all years of the curriculum. Producing a Doctor with personal skills, professional skills, world of work skills and the interprofessional skills required for the role has always been an essential part of undergraduate training at Medical School; simply producing a medical graduate is not good enough. The General Medical Council (GMC) 'licenses' our curriculum so that our students automatically receive provisional GMC registration on graduation. In the 2009 version of the GMC's publication *Tomorrow's Doctors* (which lays out the broad content of the curriculum) the medical student passes through three phases or more accurately adds layers that are hierarchical.

Clearly the student has to bring scholarship to the role of a Doctor, but after the first two or three years at medical school our students should start to develop their identity as a clinician. The most highly developed set of skills that the student must acquire before passing into the Foundation Programme as a doctor are those that characterise professionalism. This is a term that embraces many things but particularly the ability to function in a workplace, to work in a team and to work with fellow clinicians from other professions.

So personal, professional and interprofessional development and all that goes with it is not optional, it is the cornerstone of modern joined-up patient-centred clinical practice This vertical theme aims

to identify points in the curriculum that specifically direct the medical student towards the professionalism that our students aspire to and where necessary to develop new points in the curriculum that further help our graduates function as newly qualified Foundation Doctors.

How PAID is Organised

Currently there are two parts of the curriculum that fall exclusively within this vertical theme and a further embryonic initiative which would also be considered part of this vertical theme. In Year 3 a specific 1 day workshop with the University of the West of England demonstrates to the students of all 12 clinical professional groups present the importance of the team, the clinical strength that other members of the team bring to patient care and the importance of respecting colleagues, learning with colleagues and working with colleagues. These themes are further amplified in the year 5 Preparing for Professional Practice (PPP) unit. This is a 12 week unit which starts after the first part of finals in Year 5 (Christmas) and finishes after the final long case examination at the end of this unit. While there are elements in both about knowledge and skills, most of the learning objectives are framed in terms of how the professional clinician needs to function as a Doctor.

A further growing element within the curriculum is that of focusing on the Foundation Programme and beyond. There is a programme concerned with careers advice currently in both year 3 and year 4.

These are not the only points in the curriculum where personal, professional and interprofessional development can be recognised. This is a relatively new vertical theme and increasingly points at which this theme touches upon other units have been identified from Year 1 through to Year 5. Moreover it should be noted that as with many of the vertical themes, there are points where this theme and others come together for example with evidence based medicine around patient safety.

Assessment is 'on the job' with attendance therefore a key criterion to pass this theme. This year we are trialing MCQ questions on aspects of this theme in year 3.

Educational Methods Used in PAID

These are primarily 'on the job' in clinical settings. Further opportunities exist in tutor group within clinical units and in central plenary sessions with break out groups.

Main Subjects Covered in PAID

A doctor is a fairly useless member of a team if that doctor does not bring to the patients care a well rounded sense of identity and purpose as a doctor.

Subjects which either are, or will increasingly be woven into the curriculum include:-

- Developing ones own identity
- Developing self awareness
- Understanding the workplace
- Understanding other employees
- Working with other clinicians
- Working with other professions
- Shared decision making in the workplace
- Team based working – leadership
- Team based working – followship
- Understanding personal management
- Understanding organisational management
- Understanding careers in medicine
- Having knowledge of career progression in medicine
- Developing and understanding of the role of the GMC
- Understanding the necessity to fulfil the principles of Good Medical Practice
- Understanding appraisal and feedback

PAID through the Curriculum Years

While it seems at first glance obvious that many of these subjects lend themselves more to the 'clinical' years the transferable skills required to be a good doctor can be found throughout the curriculum. For example in laboratory work in years 1 and 2, the skills of communication, team working, self motivation etc. are essential. Equally the ability to work with colleagues, whether clinicians, scientists or others, make this potentially a very environment for developing the skills required to be a foundation doctor.

Suggestions for Further Reading

1. Tomorrows Doctors GMC
2. Good Medical Practice GMC
3. Year 2 Coursebook – Interprofessional Learning
4. Year 5 Coursebook – Preparing for Professional Practice

Contacts

Dr Peter Fletcher at peter.fletcher@bristol.ac.uk and 0300 422 6233