



C25

**A new curriculum
for the next
generation**



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Director CME

3-9-19

Before we get on to anything else

- Thank U
- UU



Rationale

No 'overall' review since 1996

Population is changing:

- Older, multimorbidity

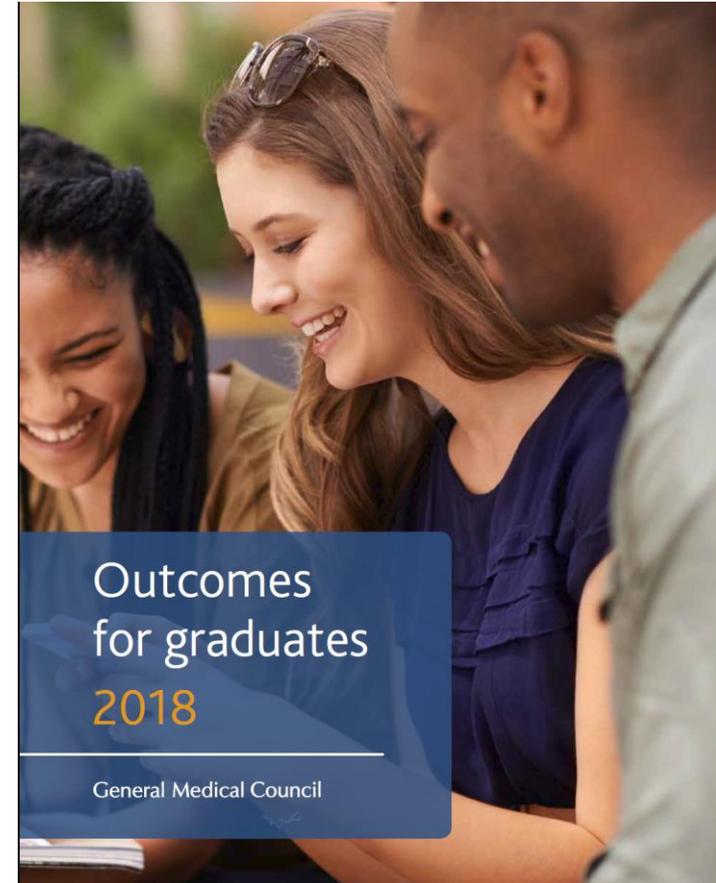
Models of medical care are changing:

- Bengoa report – Systems not Structures

Expectations of GMC are changing:

- Outcomes for Graduates 2018
- Medical Licensing Assessment 2022

Recommendation of GMC visit April 2017



The Bengoa Report

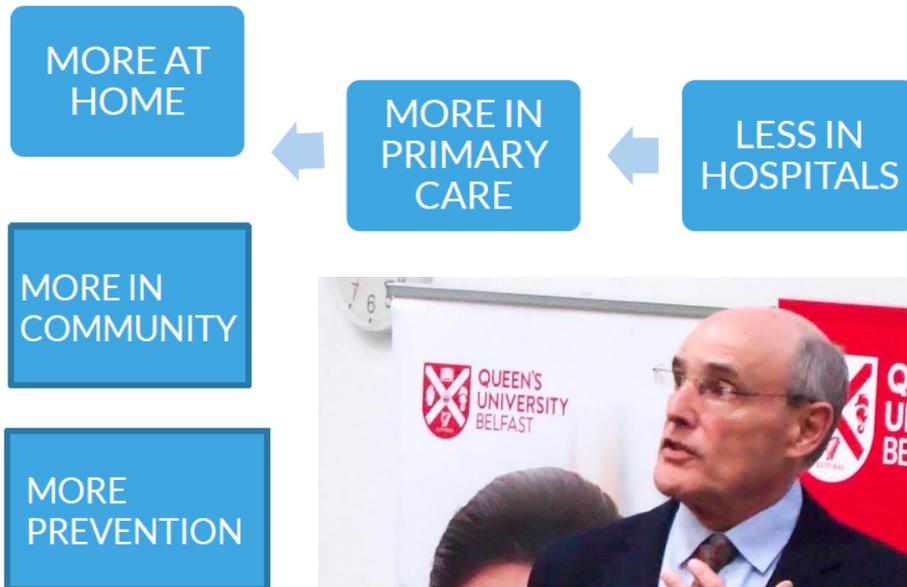
More prevention / population health

Blurring of primary / secondary care divide

Focus on new ways of doing things, quality improvement

Need for medical leaders

THE DIRECTION OF TRAVEL



Review process

- Extensive stakeholder engagement process
- We should retain:
 - Early clinical contact
 - Cadaveric dissection
 - Final year assistantship
- Areas for improvement:
 - Integration within and between years
 - Integration of biomedical and public health science with clinical science
 - Time in primary care
 - Reduce 'silos' of learning
 - 3rd year - students need a 'home'



		Helical Themes		20-Aug	27-Aug	03-Sep	10-Sep	17-Sep	24-Sep	01-Oct	08-Oct	15-Oct	22-Oct	29-Oct	05-Nov	12-Nov	19-Nov	26-Nov	03-Dec	10-Dec	17-Dec	24-Dec	31-Dec	01-Jan	07-Jan	14-Jan	21-Jan	28-Jan	04-Feb	11-Feb	18-Feb	25-Feb	04-Mar	11-Mar	18-Mar	25-Mar	01-Apr	08-Apr	15-Apr	22-Apr	29-Apr	06-May	13-May	20-May	27-May	03-Jun	10-Jun	17-Jun	24-Jun	01-Jul	08-Jul	15-Jul	22-Jul	29-Jul	05-Aug	12-Aug
Foundations of Practice	Y1	G GLOBAL AND POPULATION HEALTH	Family Attachment 1	Fundamentals of clinical sciences Core concepts in anatomy / physiology / biochem / immunology BLS Cell Biology What it means to be a doctor (8 weeks)		Life support (CVS and RS) (Cases 1-4) (10 weeks)		Xmas (4 weeks)		Life support (CVS and RS) (Cases 1-4) (10 weeks)		SSC1		Musculoskeletal 1 (Cases 5-6) (6 weeks)		Easter (3 weeks)		Year 1 content exam		OSCE		Dev (2 weeks)		Supplementary Exams (2 weeks)																																
	Y2		C CLINICAL SCIENCE AND PRACTICE	SSC 2	Nutrition and Excretion / Reproduction and Growth (Cases 10-13) (9 weeks)		Neurosciences and behaviour (Cases 14-18) (12 weeks)		Xmas (4 weeks)		Neurosciences and behaviour (Cases 14-18) (12 weeks)		Family Attachment 2		Neurosciences and behaviour (Cases 14-18) (12 weeks)		Musculoskel 2 (lower limb) (Case 19-20) (3 weeks)		Easter (3 weeks)		OSCE		Transition to practice		Supplementary Exams (2 weeks)																															
Immersion in Practice	Y3	A ACHIEVING GOOD MEDICAL PRACTICE		Intro	Longitudinal Integrated Clerkship 1 (14 wks) • Core Medicine and Surgery • 'Interleaving' Derm / Neuro / ED / Endocrine / ENT / Cardiology / radiology • GP - 1 day per fortnight CASES 21-34		LIC 1		Xmas (3 weeks)		SSC 3 (3 weeks)		LIC 2		Longitudinal Integrated Clerkship 2 (14 wks) • Core Medicine and Surgery • 'Interleaving' Haematology / Nephrology / MSK / Anaes / Eyes / Radiology • GP - 1 day per fortnight CASES 34-47		Easter (1 week)		Progress test		LIC 2		OSCE		Supplementary Exams (3 days)																															
	Y4		T TEAMWORK FOR SAFE CARE	SSC 4	CASES 48-75		SSC 4		SSC 4		SSC 4		CASES 48-75		SSC 4		OSCE		Easter (1 week)		OSCE		Integrated Clinical Science (4 weeks)		SDL		Written Finals (MLA)		ELECTIVE (6 weeks clinical experience)		Supplementary Exams (3 days)																									
Preparation for Practice	Y5	Intro (2 days)		Intro	GP 2 (6 weeks)		Acute (ED / AMU / ASU) Patient Safety 1 (6 weeks)		Chronic (e.g. CoE / Medical / stroke ip) Patient Safety 2 (6 weeks)		Xmas (3 weeks)		Chronic Patient Safe 2 (6 weeks)		SDL		Finals OSCE		Specialty elective (3 weeks)		Prep for Practice (1 week)		Assistantship (9 weeks)		Easter (1 week)		As'ship		Resits + remedial (4 weeks)		FINAL BOARD																									

Significant changes

1. Phases – Foundation Y1-2 / Immersion Y3-4 / Preparation Y5
2. Vertical Themes – GCAT
3. Integrated systems based teaching year 1+2
4. New quality improvement project year 4
5. Case based learning year 1-4
6. Longitudinal clerkships year 3 and 4
7. More time in general practice – 25%
8. Assessment – Progress testing



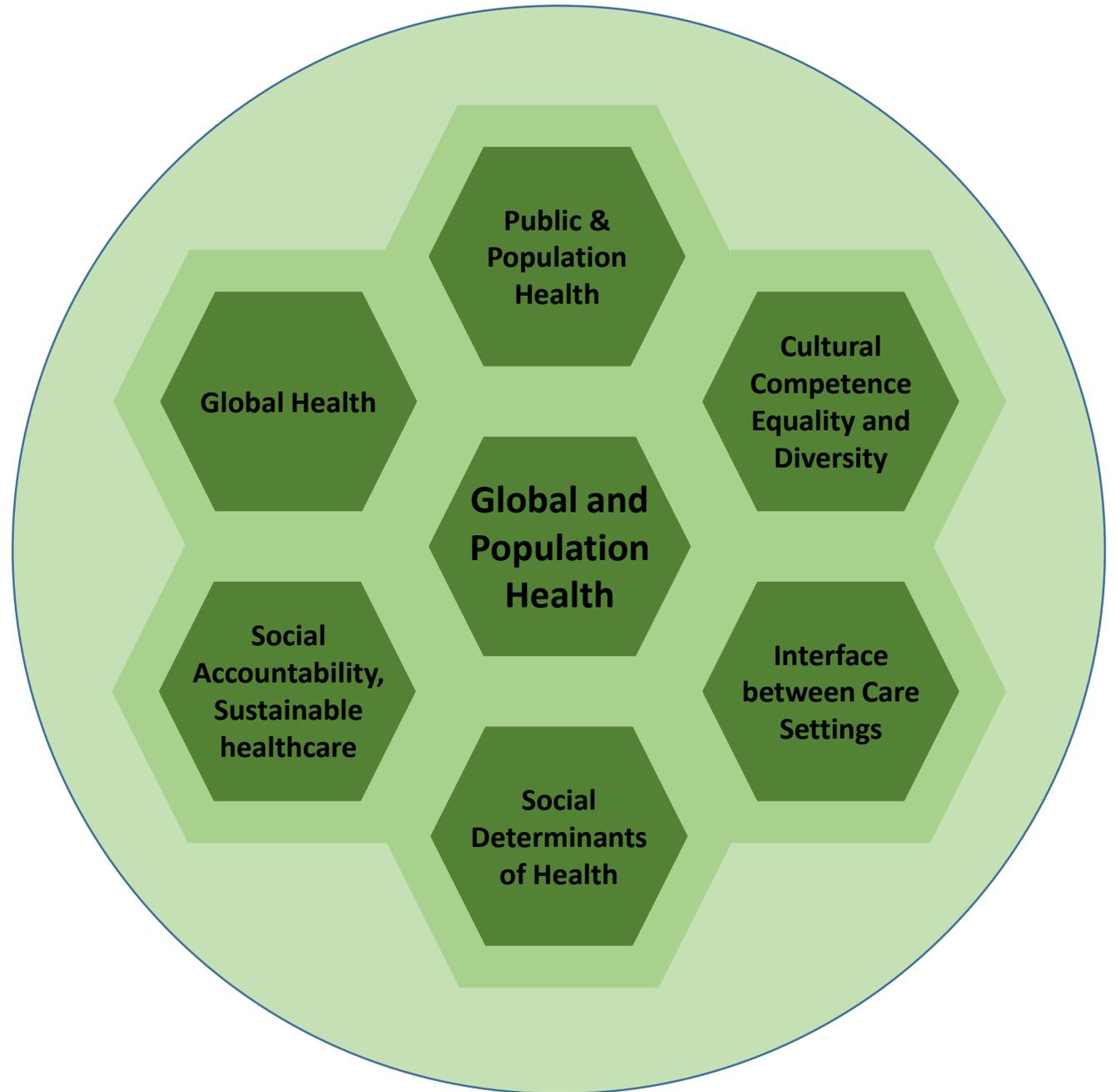
Phase	Year of Study	Focus
Foundations of Practice	1 and 2	Integrated biomedical and behavioural science teaching focusing on body systems Case-based learning
Immersion in Practice	3 and 4	Workplace learning. Longitudinal Integrated Clerkships (LIC) <ul style="list-style-type: none"> • year 3 centred on secondary care • year 4 centred on primary care. Case-based learning
Preparation for Practice	5	Consolidation of learning in primary care, acute care and chronic care Assistantship

Structure of C25

Four Helical themes of 'Curriculum DNA'



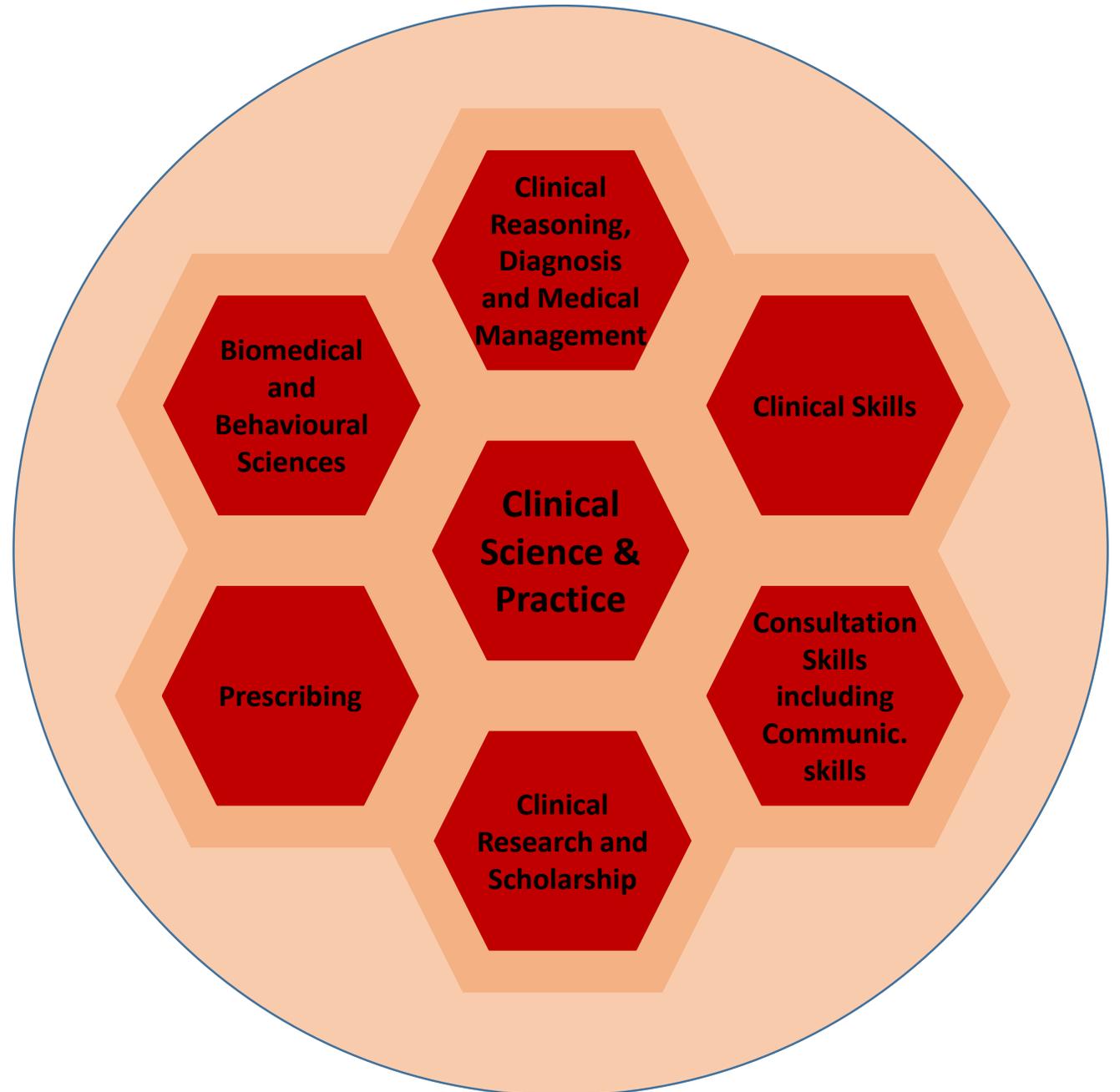
G



Four Helical themes of 'Curriculum DNA'



C



Four Helical themes of 'Curriculum DNA'



A



Four Helical themes of 'Curriculum DNA'



T



Years 1 and 2

- **Integrated** systems based teaching – biomedical, behavioural, public health, clinical science
- Foundations module
- 5 systems modules:
 - Cardiovascular / Respiratory / Haematology
 - Musculoskeletal 1
 - Gastrointestinal / Renal / Endocrine / Reproductive
 - Neurological (includes mental health)
 - Musculoskeletal 2 (includes skin)
- Retain cadaveric dissection and early clinical contact / FAMILY ATTACHMENT
- Case-based learning

Case based learning

- Groups of 8-10
- 2 hour group learning Monday week 1, Thursday week 1, Thursday week 2
- 2 week cycle - Clinical scenario trigger – written / video based
- Facilitated 'guided learning' (NOT PBL)
- Students brainstorm on what they know (or not) and decide on learning tasks
- Students create shared learning resource
- Learning outcomes given to the students at first meeting
- **Remainder of week:** lectures / tutorials / practical work aligns with case

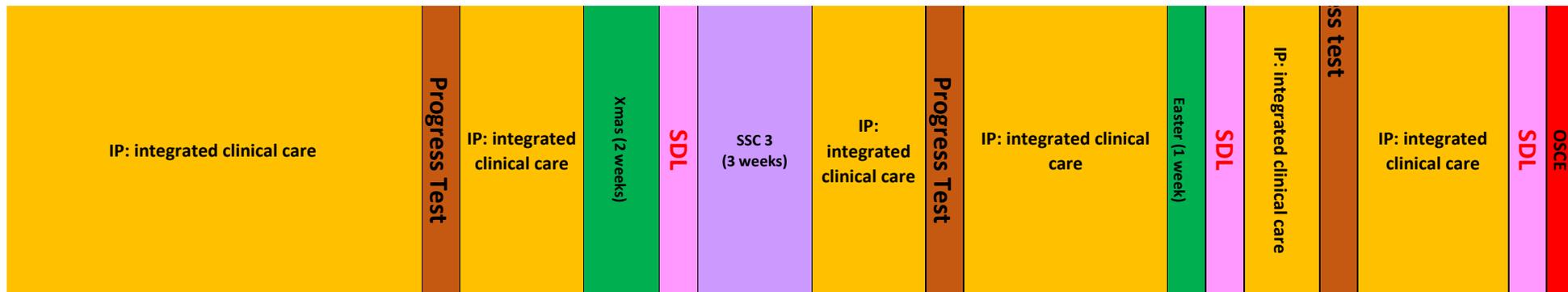
	M	T	W	T	F	M	T	W	T	F
Year 1 AM	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Yellow	Green

For example – year 1

- 5 year old with recurrent wheeze / non-compliance with Rx
- Learning outcomes include:
 - Histology and anatomy of lower respiratory tract / sympathetic innervation / $\alpha + \beta$ receptors / β antagonists / flow-volume loops / inflammatory process etc
 - G – hygiene hypothesis / particulate pollution
 - C – communication with a child
 - A – raising concerns
 - T – role of health visitor
- Didactic / practical teaching that week may cover some of these LOs

Year 3 – Longitudinal Integrated Clerkship in secondary care

- Integrated care module: 14 week clerkships in Belfast Trust: 14 weeks in another trust
- Medicine / surgery and subspecialties / emergency medicine
- Weekly case based learning
- 2 days per month in primary care (15 days a year)



Why longitudinal clerkships?

- Belonging – students want to be part of a team
- OFG objectives: ‘Understanding complexity’ and ‘Dealing with uncertainty’
- Existing curriculum has excessive focus on inpatient, hospital based care
- Reduce variability of student learning through cases
- ‘Spaced’ learning / ‘interleaving’ – improves knowledge retention

Back to school...

School
timetable

Monday	Tuesday	Wednesday	Thursday	Friday
Maths	English	Biology	Drama	Chemistry
French	Maths	Physics	PE	English
Art	Drama	Chemistry	German	Maths
Biology	IT	English	French	Physics

Block Rotations

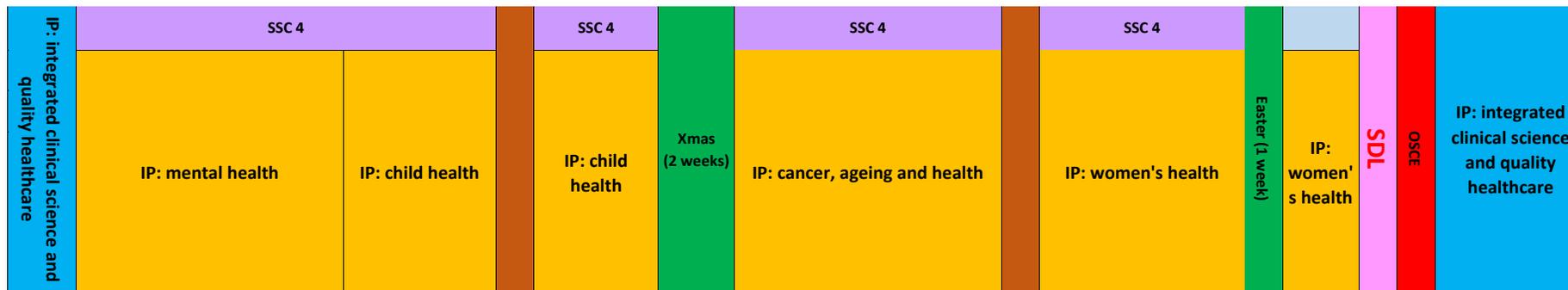
Maths (8 weeks)	English (8 weeks)	Biology (8 weeks)	Drama (8 weeks)
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For example – year 3

- 60 year old with COPD, pulmonary hypertension, life-limited
- Learning outcomes:
 - Respiratory symptoms and signs in COPD / pathogenesis of COPD / treatment of COPD / signs of pulmonary hypertension etc.
 - G – evidence-based smoking reduction strategies
 - C – lung compliance / alveolar gas exchange / flow-volume loops
 - A – ethics of end-of-life care
 - T – accessing home oxygen therapy

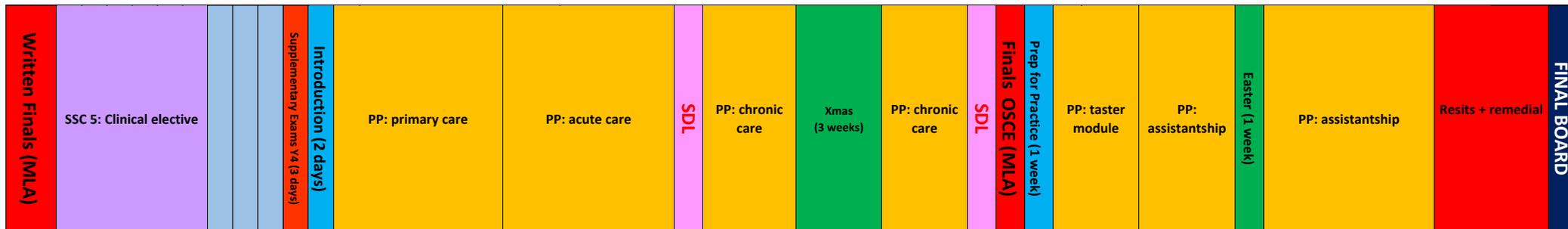
Year 4 - LIC primary care and life cycle

- 4 rotations x 7 weeks in Child Health / Women's health / Mental Health / Cancer Ageing and Health
- Each block co-designed and co-delivered in primary and secondary care
- 8 weeks of GP (4 x 2 weeks within each rotation)
- Integrated clinical science and quality improvement teaching:



Year 5 – preparation for practice

- Written finals at transition to year 5
- Clinical elective
- 3 clinical blocks x 6 weeks - acute care / chronic care /primary care
- 3 week ‘taster’ placement
- 9 week assistantship (Including 1 week GP)



1

- 12 week model
- Scientific focus

2

- 12 week model
- Scientific or Community focus

3

- 3 week block model
- Clinical focus

4

- **Year long**
- **Quality Improvement project**
- **Primary or secondary care**

5

- Block model
- Clinical Elective

Student Selected Components



Royal College of
General Practitioners

SAPC

Society for Academic Primary Care

Teaching general practice

Guiding principles for undergraduate
general practice curricula in UK
medical schools



Primary Care

In every year of the curriculum

Weighted to years 4 and 5

22 weeks of primary care

(25% of core clinical placement)



**QUEEN'S
UNIVERSITY
BELFAST**

Summative testing

- Individual modules in-year are pass/fail (attendance, logbook)
- Synoptic knowledge test at end of year 1
- Progress testing for years 2 – 4.
- OSCEs at year end are summative years 1 - 4
- “Finals” are also GMC Medical Licensing Assessments
- Written “Finals” at transition to year 5 (end of year 4)
- OSCE “Finals” Spring of year 5

Progress testing, outline

- Longitudinal, repeated assessments of functional knowledge
- Pitched at graduate-level applied knowledge
- Multiple times per year (2 - 4)
- All years sit same paper; different set-standard
- Result accumulated over the year for progression
- Progress demonstrated over years
- Many new curricula are using this system

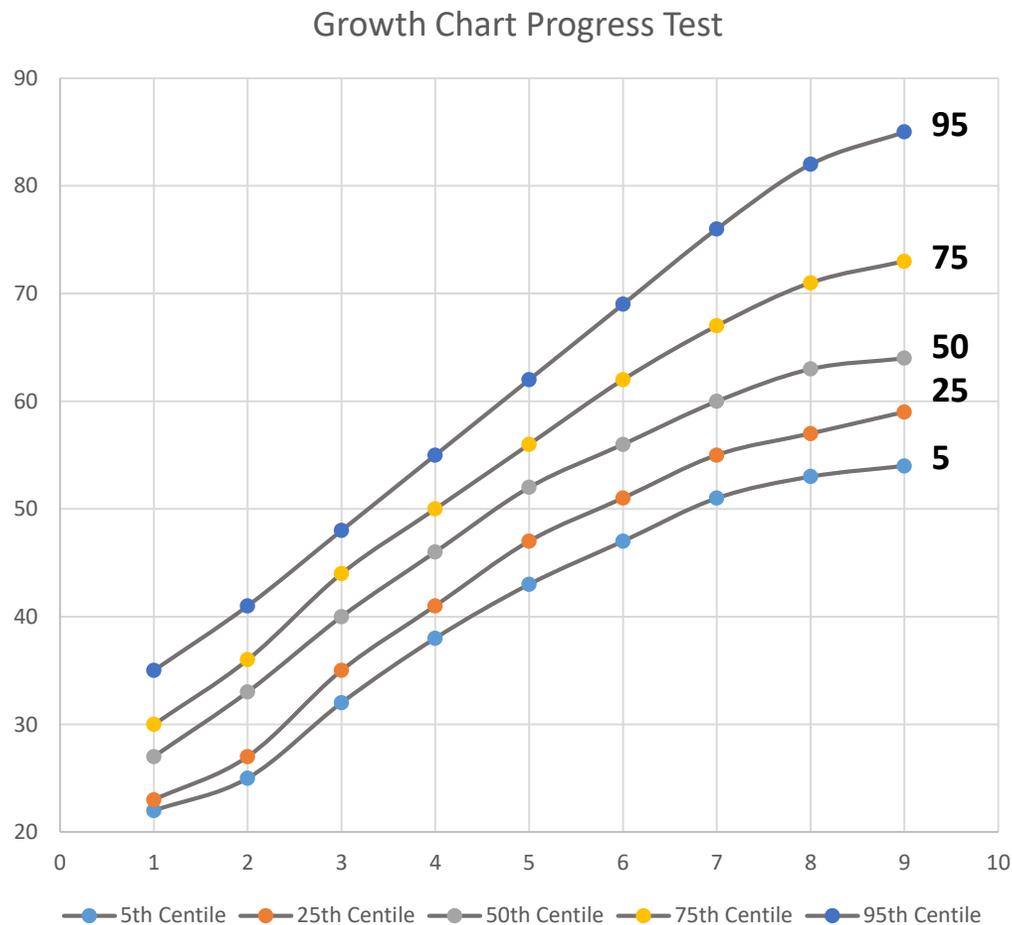
Exeter, Plymouth, Kings, UCL, Manchester, Bristol, Cardiff, Swansea

Progress testing, benefits

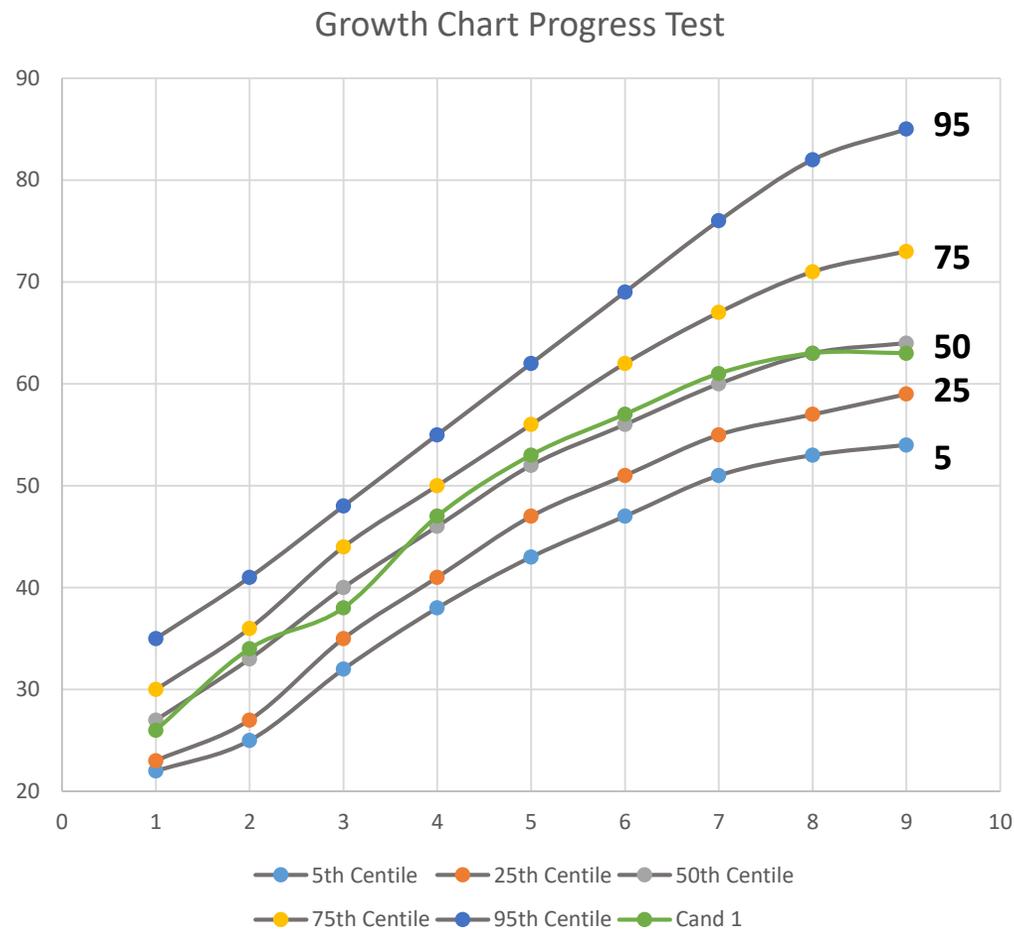
- Shown to reduce exam stress, makes cramming irrelevant
- Evidence it encourages deeper learning
- Integrates learning between years
- ‘primes’ learning for students: focuses teaching for lecturers
- Students see early years material through to finals, vice versa
- Students can see their progress over years, by test and subject
- Avoid ‘Learn Assess Forget’ - LAF

“Assessment for and of learning”

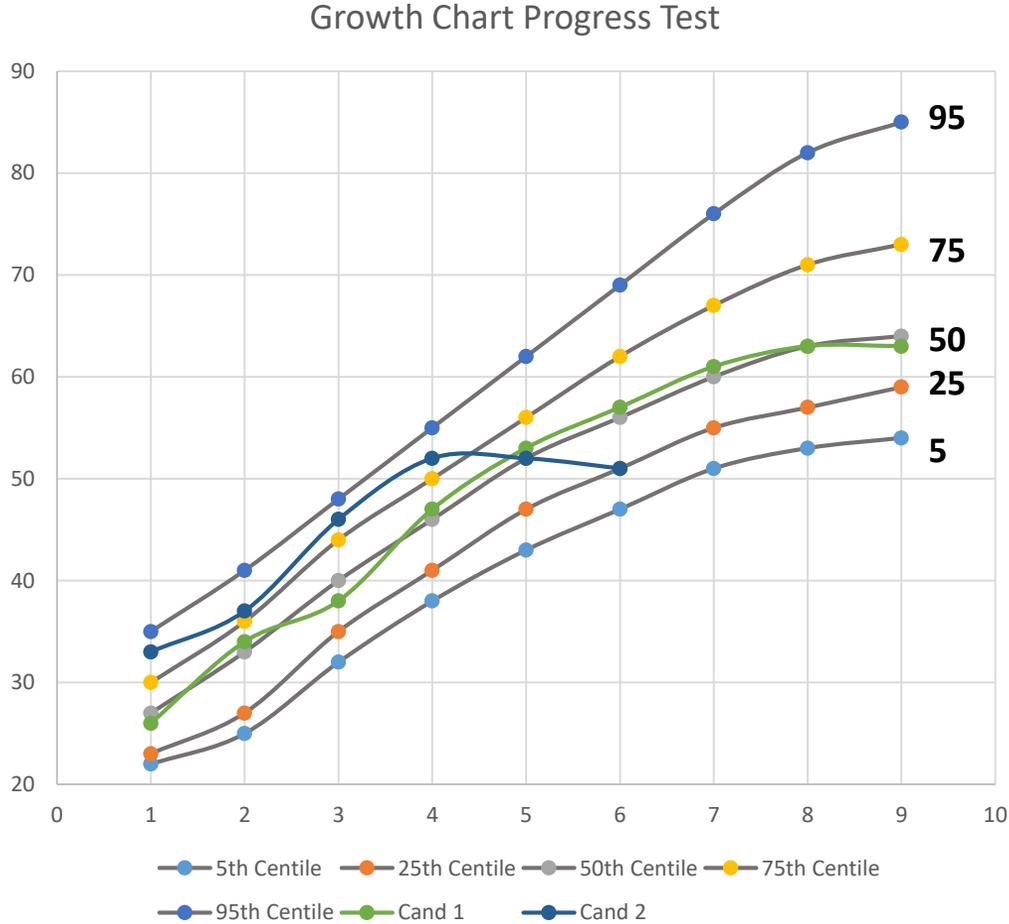
Progress test feedback – “Growth” Chart - Raw scores



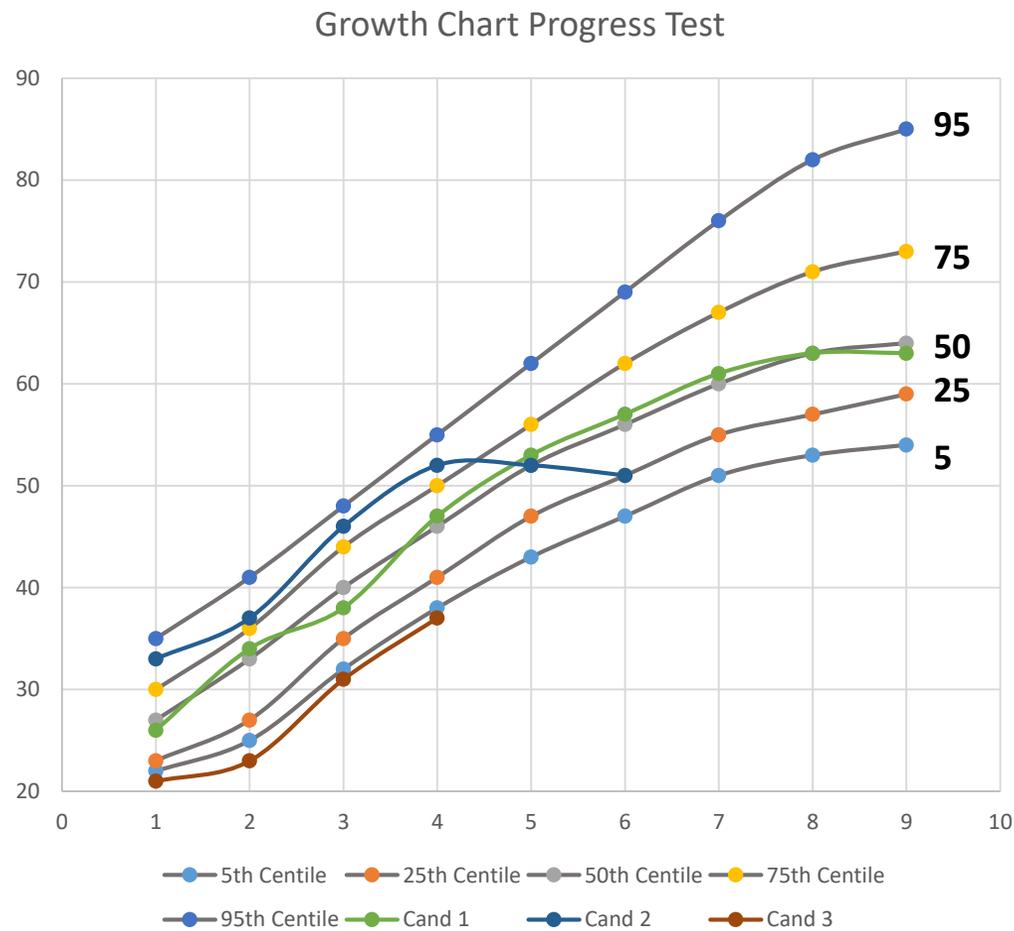
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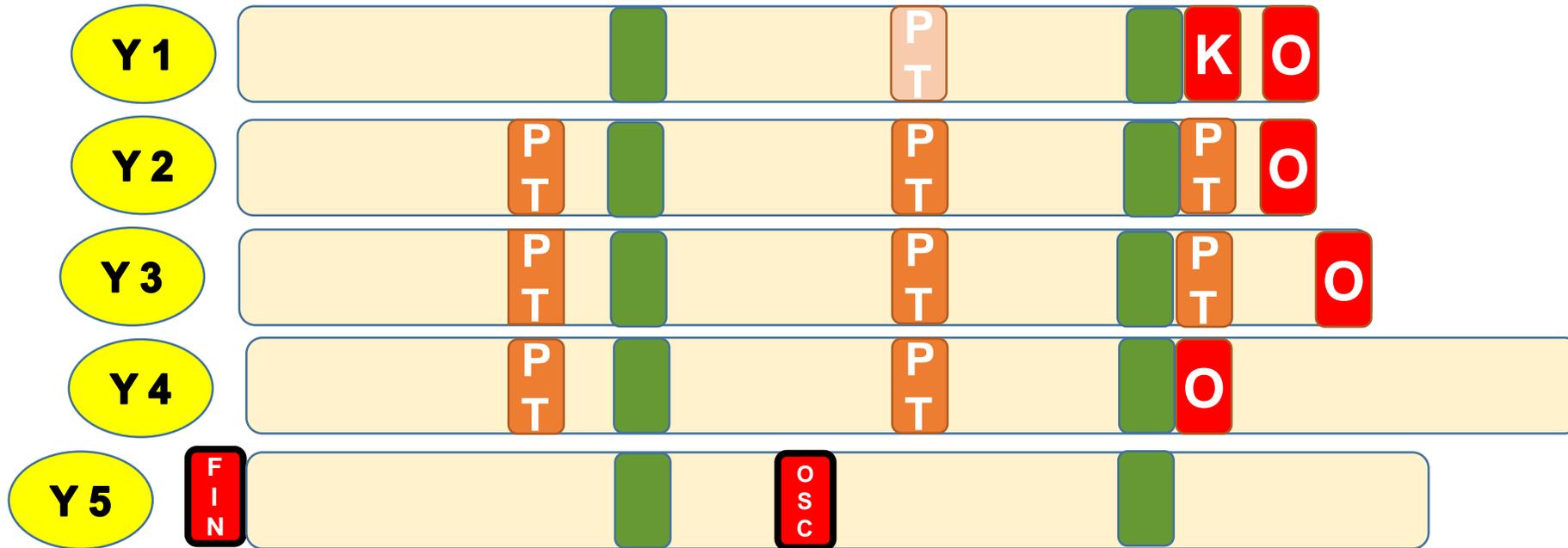
Progress test feedback – “Growth” Chart - Raw scores



Progress test feedback – “Growth” Chart - Raw scores



Key assessments in the new QUB curriculum



PT Progress Test – years 2-4

K Year 1 Knowledge test

O OSCE

FIN Written finals = Medical Licensing Assessment

OSC Clinical finals = Medical Licensing Assessment

“

We only get exposure to really busy practices where everyone is really stressed out/overworked. Every GP I've met has told me not to do general practice”.

Medical Student

(Some of the) Challenges

- Capacity
- Rooms
- Transport to placements
- Progression in primary care centred learning
- GP bashing



Lots of ways to get involved

- Case writing
- Leading Case based learning in years 1-4
- Question writing for progress testing – we need lots of questions set in primary care
- QI projects and assessment
- Provide fantastic clinical placements

New curriculum – same vision



“The Queen’s medical graduate is a caring and compassionate doctor who is a critical thinker, problem solver and reflective practitioner with excellent clinical skills who values, above all else, service to patients.”