Alive and LIC'ing ?

A description and discussion around the results of a 4-year pilot of a LIC-'Lite' scheme in Exeter UK

Dr Alex Harding MEd FRCGP
Senior Lecturer and Sub Dean
University of Exeter medical School

Aims for the session

1. To describe what has gone on in the UK
2. To use the expertise present – interactive
3. A (very real) problem solving exercise using the data presented

Something to think on…?

- The data supports many of the findings from other LICs
- However the structure of longitudinal attachments in UK differs considerably from conventional LICs
  - Shorter attachments (1-3 weeks at a time – 12 weeks in total)
  - But over a longer period of time following patients (2 years)
- So….
  - What is the optimum time / structure of LICs?
  - What are the bits of LICs that give most added value?
  - Is the current conception of a LIC too narrow?
  - Do we need to introduce teaching strategies that strengthen LICs?

UNIVERSITY OF EXETER | MEDICAL SCHOOL

Structure

1. Introduction: Setting up a LIC-’Lite project in the UK
2. Data from evaluation and research
3. A problem solving exercise

Theoretical perspective: Actor Network Theory (ANT)

- Provides a framework for how complex systems develop (part 1- process)
- Provides an approach for analysis of complex data (part 2 – data analysis)

Actor-Network Theory (ANT)

1. Attempts to bridge the gap between
    1. Sociocultural theories (How culture and environment impact on learning)
    2. How individuals learn (Reflective learning, Adult learning etc)
    3. …and common sense – the role of everyday stuff like computers, pens, policies, bleeps and chairs
2. Everything is looked upon as being (potentially) of equal importance (Symmetry)
3. Brings all of these ‘actors’ together in describing networks and patterns of association.

UNIVERSITY OF EXETER | MEDICAL SCHOOL

Some Introductions

- Where are you from?
- LIC ing experience?

Yesterday's Cafe
"Blast from the Past"

Part 1 - Background and process Outline of Section

1. Background
    1. Location of LIC – ‘Lite
    2. Structure of medical course in general

2. Process
    1. A description of what’s happened
    2. Using an ANT approach
    3. Some unanswered questions

1. Background – Location

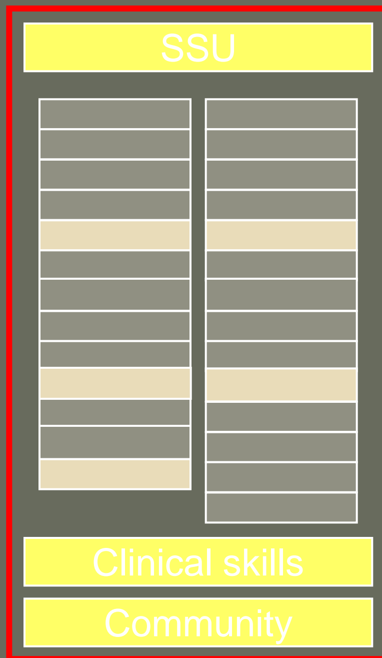
Peninsula Medical School – Similar course to other UK schools

- Joint venture between Exeter and Plymouth, distributed over 5 sites (Barnstable, Torbay, Truro) – 200 miles
- First intake 2002 (75) …… Intake of 250 by 2007
- Traditional (like all UK schools): Clinical / Preclinical
- Preclinical : 'PBL' – Hybrid – Small Group
- Clinical: Antithesis to LICs
  - 1 week attachments
  - 'I cant think of anything more out of line with modern educational theory' David Irby 2011
- Became 2 separate medical schools in 2012
- University of Exeter Medical School (UEMS) covers 4 of the 5 sites.

UNIVERSITY OF EXETER | MEDICAL SCHOOL

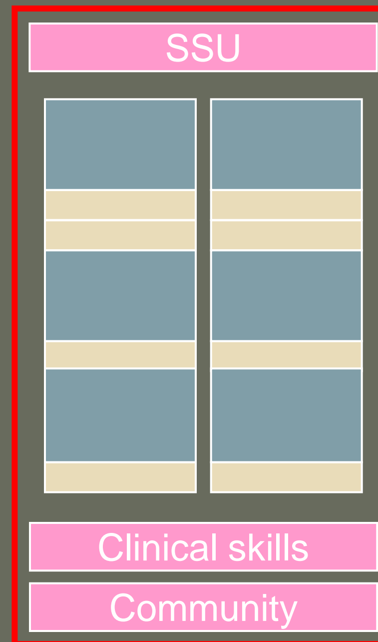
Curriculum Overview

"Clinical Learning"
Yr 1 and 2



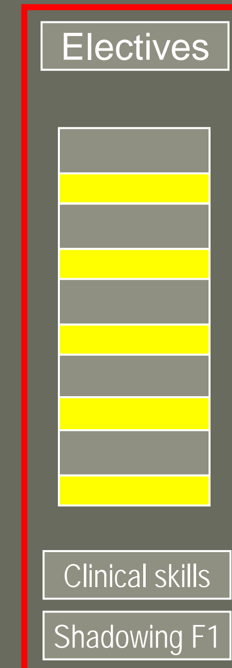
Life cycle

"Clinical Care"
Yr 3 and 4



Pathways

"Clinical Practice"
Yr 5

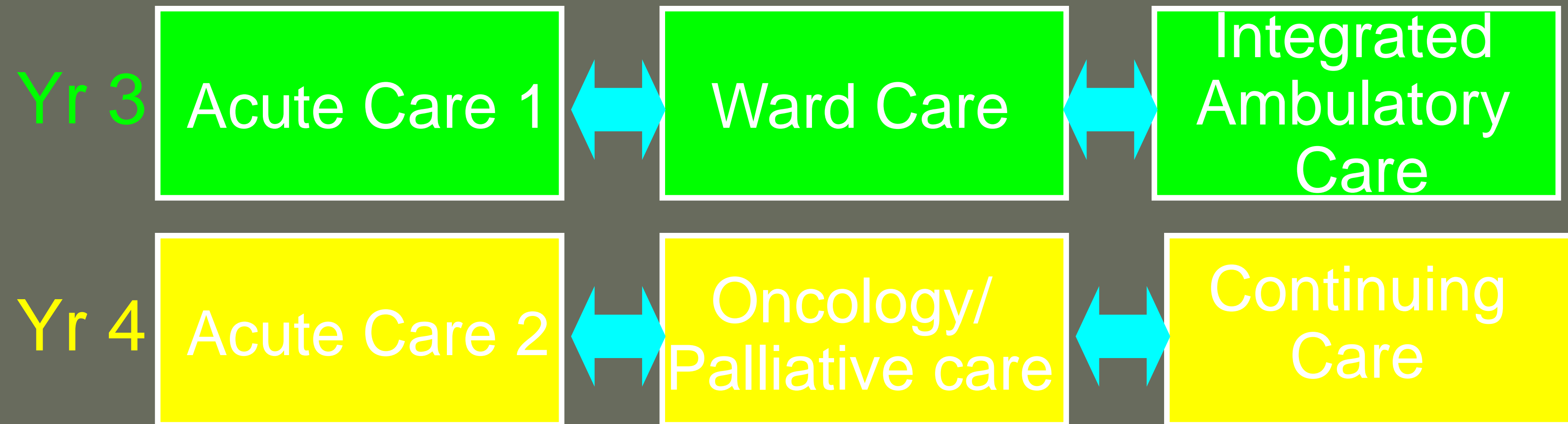


Clinical Blocks

1. Background – Course structure

UNIVERSITY OF EXETER MEDICAL SCHOOL

Clinical learning (Years 3 and 4)



1. Background – Course structure

UNIVERSITY OF EXETER | MEDICAL SCHOOL

Pathways of Care Year 3

ACUTE CARE 1	WARD CARE	IAC
Chest pain	Confusion	Psychoses
Palpitations	Collapse and falls	Suicide and self -harm
SOB1	Broken leg	Depression and Anxiety
Abdo pain 1	Peri-op collapse	Alcohol + Substance
Abdo pain 2	Elective major surgery	Worrying child
Thirst	Fever in post-op	GP week
Confused drinker	Deafness	Day surgery
Right sided weakness	HIV/AIDS/STD	Pregnancy and labour
GP week	GP week	New baby

1. Background – Course structure

Original Outline timetable

	Mon	Tues	Weds	Thurs	Fri
AM	Academic Day	SDL	Clinical Placement	SDL	Clinical Placement
PM		Clinical Placement	Leisure Time	SDL	Feedback

Outline timetable for GP

	Mon	Tues	Weds	Thurs	Fri
AM	Academic Day	Clinical Placement	Clinical Placement	Clinical Placement	Clinical Placement
PM		Clinical Placement	Leisure Time	Clinical Placement	Feedback

1. Background – Course structure

Exeter in 1597

poble

UNIVERSITY OF EXETER MEDICAL SCHOOL

Process - An ANT Approach

1. Problematisation – Defining the problem
2. Interessement – Persuasion about concept
3. Enrollment – Getting together a few – ‘Pilot’
4. Mobilisation – Going viral

Law.J. and Singleton. V. (2005) Object Lessons. *Organization. 12(3) p331-355*

1. Problematisation

- Capacity and GP timetabling difficulties
- Lack of theory informing clinical learning
- Case based learning
- Unpopular
- Falling revenue for teaching

Outline structure of POBLE (1)

Capacity

1. Scaffolded Learning not adult learning
2. Skills based curriculum, not case based
   – SDL; Time for follow up of patients, video analysis, guided cases, project work. This frees up space in GP timetable.

Theory

1. Continuity of care (Pereira-Gray)
   1. Relationships with Drs and Patients over longer periods
   2. Specific training in relationship skills - video
2. Modern learning theories informing new teaching strategies for clinical learning
3. Social accountability, leadership and research skills
   1. Change management project

Process - ANT

Revised timetable for GP

	Mon	Tues	Weds	Thurs	Fri
AM	Academic Day	Structured learning	Clinical Placement	Structured learning	Clinical Placement
PM		Clinical Placement	Leisure Time	Structured learning	Feedback

Process - ANT

POBLE 2

- 6 x 1week attachments to GP (3 weeks in years 3 and 4)
    - Seeing patients in clinics
    - Following up POBLE patients
    - Structured learning
- 1 x 3 week course on continuity and relationship building (Year 3)
- 1 x 3 week attachment for change management project (Year 4)
- 12 weeks in total over 2 years
- 30 Practices now involved, 30 students / yr

2. Interessement

- Acceptance of principles
  - External speakers (Prideaux, Irby, Hirsh)
  - Joint ownership reduces personal threat
  - Changes within institutions
  - Long term
- Forming a guiding team?
  - Not really – more horizontal – more inclusive
- Agreement for a 'pilot programme'
  - Care needed – it might stay that way and stay a minority interest

UNIVERSITY OF EXETER | MEDICAL SCHOOL

3. Enrollment

- Poble pilot; 6 – 12 – 18 – Opt in (30)
- Long and complicated process
  - Co-ordinating student volunteers
  - Co-ordinating teaching volunteers
- Repetitive and draining
  - Information dissemination
  - Motivation of participants
  - Self motivation – keeping positive
- Possibly too ambitious
  - Too many ideas

4. Mobilisation – From few to many

- If you love something set it free? – calling time on pilot programmes.
- A stroke of luck?
  - A maelstrom of change (2002-2013)
    - » 4 deans, >4vice deans, 3 name changes, 2 new schools, 75-1250 students, new dental school.
  - Sometimes this can advantage those with a plan
- Getting a handle on the process
  - Termly focus groups for tutors and students
  - Lack of accepted assessment for patient panels

Thoughts about the process

- Its very difficult to run pilots that run counter to existing structures
- Change was brought about through a clear idea of how things had to change….
- But changes happened incrementally as they challenge deeply ingrained beliefs (intimacy, speciality based learning, clinical exposure at all costs)
- It really helps to have at least an outline structure of how to manage change (Law, Kotter)

The River Exe

Part 2

Results of Evaluation

The love you take is equal to the love you make?

Evaluation and research data

1. Knowledge test scores
2. Quantitative analysis of clinical encounters
3. Student diaries
4. Student evaluation (quantitative and qualitative)
5. Actor-Network analysis of observational and focus group data (intervention and control)

UNIVERSITY OF EXETER | MEDICAL SCHOOL

1. Knowledge test scores

- Small numbers of students
- 4x tests of 125 question; 2 years of analysis
- No difference in overall scores (Oswald et al 1995)
- Non-statistical increase in psychology / psychiatry questions.

Oswald.N. et al (1995) Long-term clinical attachments; the Cambridge course. Medical Education 29 p72-6

2. Clinical Encounters

- Analysis of electronic student logs
- Mean no of cases logged (yr)
    - POBLE = 120
    - Control = 106
- Cases cover majority of clinical curriculum (Oswald 1995, Ogur and Hirsh 2009)
- People who volunteer for pilot programmes may have different characteristics.

Ogur.B. and Hirsh.D. (2009). Learning through longitudinal patient care-narratives from the Harvard Medical School-Cambridge Integrated Clerkship. *Academic Medicine*. 84(7) 844-50

UNIVERSITY OF EXETER | MEDICAL SCHOOL

3. Student Diaries

- 5 diaries kept for 2 years
- Cases cover most of clinical curriculum (ibid)
- Reflections based on emerging feelings of inadequacy, fear and uncertainty regarding negotiating patient relationships.

  (Ogur 2009, Walters 2011)
- Frustration when patients are ‘lost’ to follow up..negative case analysis useful?

Walters.L. (2011) Demonstrating the value of longitudinal integrated placements to general practice preceptors. Medical Education 45 p455-463

4. Student Evaluation – Quantitative 1

- 535 written evaluation episodes
- Students asked to rate satisfaction and relevance to their learning on 5 point Likert scale
- 1=bad..very bad,   5=good…very good
- Average rating for all course elements = 3.9 (Annual student evaluation exercise)

UNIVERSITY OF EXETER | MEDICAL SCHOOL

4. Student Evaluation (Quantitative)

	Placements (6 x 1w)	Continuity Skills (1 x 3w)	Live video work	Research Project (1 x 3w)
Year 1 10/11	4.1	3.8	4.2	-
Year 2 11/12	4.45	4.26	4.50	4.28
Year 3 12/13	4.33	-	4.62	4.58
Year 4 13/14				

2. Data Analysis

UNIVERSITY OF EXETER MEDICAL SCHOOL

Comments

- Better liked and perceived as more relevant than other parts of the course (Ogur et al, 2007)
- Improvement may reflect the efficacy of termly feedback sessions; some unpopular elements removed and glitches addressed
- Might sugggest that the first year of any new intervention may be particularly rocky as unforseen elements emerge
- ‘Satisfaction’ with LICs in general practice is difficult to gauge, as in UK they are well rated (4.12 in Exeter)

Ogur. B. et al (2007) The Harvard Medical School-Cambridge Integrated Clerkship; An innovative model of clinical education. *Academic Medicine* 82 (4) 397-404)

4. Student written evaluation – Qualitative 1

- Consistent feedback about lack of information:
    - Communication issues, assessment criteria
    - What to ‘do’ with long term patients
    - Other doctors don’t know about POBLE
- Too much effort is required (from the students)
    - Emotionally draining
    - Seeing patients outside 9-5
- Process of keeping in touch with patients long term is difficult
- Poor student motivation not encountered in the literature…? A side effect of short term placements

UNIVERSITY OF EXETER | MEDICAL SCHOOL

4. Student Written Evaluation – Qualitative 2

- Students talk of psychosocial issues
  - Effects of disease on patients lives (home visits)
- Students talk about doing useful things
  - Telling GPs things they don’t know
  - Doing practical procedures (intimate ones)
- Students talk of being part of a team
  - Contrast with control – jealousy of student nurses
- Students express strong positive emotions
  - Joy at birth, privilege at witnessing death
- How good it is going back to the same place at beginning of year 2

None of this is mentioned in the control group

5. An Actor Network Interpretation of 8 focus groups and direct observation of learning

- Symmetry
  - People
  - Objects
  - Ideas / principles

- Mediators and Intermediaries

UNIVERSITY OF EXETER MEDICAL SCHOOL

Aim

- To describe how learning networks are constructed in longitudinal experiences
- To compare these learning networks with students not doing longitudinal attachments.

Longitudinal learning networks are richer and more sustained compared to short term placements.

POBLE LEARNING NETWORK

Technology
Alerts, texting, email, computer notes

Communication
Assessments
Expectations
Timetabling
Part time teachers

Motivation
Teachers
Students

Location
GP Surgery - space
Panel patient
Car ownership

Assessment
Interferes
Motivates follow up

Trust issues
Giving your number
visiting patients home

Biopsychosocial
Interpretations
With emotion

Relationships
What is medical talk
Being 'used'
The role of chat

Feeling useful
Part of team -role
Doing things

Cultural Norms
Fear of intimacy

UNIVERSITY OF EXETER | MEDICAL SCHOOL

A positive case analysis - Steph

- Practice 15 miles away, student owns car.
- Very motivated GP and student
- GP helps co-ordinate visits at surgery
- Student delivered child and followed up for 18 months after birth
- Present at the death of patient that was seen every week for 6 months during terminal illness
- Has selection of other POBLE patients according to clinical interest
- Has given patients e mail address and mobile number

Negative case analysis – Rachael – Losing a patient to follow up

- Chose pregnant woman after introduction at clinic
- Made several phone calls but not returned
- Irritated when Rachel subsequently learned of the delivery
  - No linkage with hospital (still paper notes)
  - GP did not act on ‘yellow flag’
  - Maybe receptionists at practice would be better co-ordinators?

UNIVERSITY OF EXETER | MEDICAL SCHOOL

Non POBLE controls

Technology

No access to wards
No access to computers
No wireless network
No mobile signal
Cant work bleeps

Lack of role

Scare stories

Quality of teaching

Biophysical paradigm
Little emotion

Knowing where stuff is

Failure to see patients
Lack of procedures

Other healthworkers
No relationship
Deny access to patients
Source of envy
Access to patients

Negative case analysis – Farhan

- Unable to see clinical case relevant to index case during week long attachment
- Looking for another patient to see in ED but nurses prevent access – patient is too tired
- Poorly motivated – lacks the 'fit' to inspire nurses
  - Traumatic learning incident with physician
  - Problems at student accommodation
  - Adopts strategic attitude to assessment - disengaged
- Has not performed any intimate exams or blood taking this year (Interviewed in May)

UNIVERSITY OF EXETER | MEDICAL SCHOOL

Triangulation of data

- Themes that emerge in student written evaluation also emerge in focus groups and observation
- Findings broadly similar to other LICs – but the experiences are weaker / more dilute
- Large difference between student quantitative scores and qualitative data… Emotional investment of clinical students?

UNIVERSITY OF EXETER | MEDICAL SCHOOL

An Autobiographical comment

- Project manager and provider for past 4 years
- Analysis of the POBLE data begins to show positive outcomes from continuity, but its diluted.
- Analysis of control data strongly suggests demotivating character of lack of continuity.

Summary and discussion points

- POBLE suggests many of the outcomes of LICs are being met, but with a very different structure……
- The motivation of students is critical, something seems wrong in UK?....
- Do we need a set of teaching strategies that add strength to longitudinal learning networks?

Beginning of a new dawn

- Design of a new clinical programme in years 3 and 4
- New Distributed Medical School
- Continuity as a guiding principle
- To apply to General Practice and Hospital placements

THE BEATLES

HELP!

EMI

7 SONG RADIO SAMPLER

Licensed for promotional use only. See package for details.

Additional References

1. Peirera-Gray et al (2003) Towards a theory of continuity of care. *Journal of the Royal Society of Medicine.* 96(4) p160-166
2. Kotter.J.P. (1995) Leading change, why transformation efforts fail. *Harvard Business Review* 73 p59