Uncertainty

“The trouble with the world is that the stupid are cocksure and the intelligent are full of doubt” Bertrand Russel

“Doubt is not a pleasant condition but certainty is absurd” Voltaire

“Fame is a vapour; popularity an accident; the only earthly certainty is oblivion” Mark Twain

“Inquiry is fatal to certainty”- Will Durant

“Science has proof without certainty. Creationists have certainty without any proof” Ashley Montague

“Life is uncertain. Eat Dessert first”

“If a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties.” Francis Bacon

“Fear comes from uncertainty. When we are absolutely certain, whether of our worth or worthlessness, we are almost impervious to fear. Thus a feeling of utter worthlessness can be a source of courage” Eric Hoffer

“Science does not give us absolute and final certainty. It only gives us assurance within the limits of our mental abilities and the prevailing state of scientific thought”- Ludwig von Mises

Coping with uncertainty

How good are you?

The doctor, having failed to make a firm diagnosis shows intolerance of uncertainty by a hurried rush to treatment investigation or referral, without thought for the patient's convenience, or proper concern for NHS economy.					The doctor, having excluded immediate risks is prepared to 'use time as a tool' to allow things to become clear, while giving the patient support and gaining his/her trust; when this is not possible he or she uses diagnostic and referral facilities appropriately, economically and with due regard to the patient's feelings.				
1 ☉	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	8 ☐	9 ☐	10 ☐
Has little understanding of this.		Attempts to do this but is not yet skilful and sometimes runs into difficulty.			Attempts to do this and is usually successful but recognises his/her limitations.				Perfect

Subscales

The doctor:

		Rarely	Occasionally	Fairly frequently	Often	Usually
(a)	Once he or she is sure that the patient is not endangered, is prepared to wait and watch.	☉	☐	☐	☐	☐
(b)	If he or she has decided on 'masterly inactivity' sets out to gain the patient's trust for the course of action.	☉	☐	☐	☐	☐
(c)	Where necessary chooses	☉	☐	☐	☐	☐

investigations which take into account both the feelings and convenience of the patient and also health service costs.

(d)	Where necessary gets consultant help in the most cost effective and considerate way.*	☐	☐	☐	☐	☐

Notes for raters

This area of behaviour is best assessed by case discussion, asking, "Why did you do that?", "Had you thought whether. ..?", "Couldn't it have waited?"

Uncertainty

Tips for dealing with uncertainty

Tip 1 recognise there are different types of uncertainty

There are 3 types of uncertainty in medicine

Type 1
When medical knowledge about a topic is deficient – No doctor on earth knows the answer to this one

Type 2
When medical knowledge about a topic is sufficient but your own knowledge or recollection is deficient

Type 3
Am I type 1 or type 2?

Tip 2 distinguish between stake and odds

What do I or the patient stand to win or loose?

What are the odds? 25:1
What could happen and what are the chances (probability) for each option?
Unlikely clinical outcomes can still be a problem if there is a lot at stake e.g. death. A 1:1000 chance of a skin rash is not the same as a 1:1000 chance of anaphylaxis or agranulocytosis.

Tip 3 Define the risk more precisely.

Allocate the patient to a more precise prognostic`category.Is the patient a typical case of the disease?
Take a better history – this is nearly always the best option
Examine the patient
Do tests (hardly ever as effective as a good history.

Tip4 Use a safety net.

Graded response

Things you can say

- "Come back if…"
- "Ring me if…"
- "I'll ring you …"
- "If… then …otherwise…" instructions

Things you can do:
- Diary and Review patients notes after a time

- Revisit

Tip 5 Gamble professionally

Making decisions under conditions of uncertainty is a form of gambling. Like the gambler, the decision maker(whether or not with the help of formal decision analyses, seeks information about possible gains and losses and the weighs the gains with the losses in terms of their probability and value"

Play percentages; accept probability rather than certainty
Not all decisions are either or
Diseases are not uni-causal not all management follows algorithms
Don't go for the big pay out, the long shot that will solve all problems e.g. "amputating your leg will cure all your mental health problems"

Separate the knowns, from the unknowns
Separate out where outcome is down to chance or there is an opportunity that skill may influence the outcome

Realise that we are often drawn to known risks because we feel more comfortable

Tip 6 Deal with Risk

There are 2 ways of dealing with risk

<u>Avoid Risk</u>
Not really recommended but can be used
Refer everyone
Bring every patient back for review
Treat everyone
Escape to another speciality (Non clinical)

<u>Accept Risk</u>
Accept responsibility

General Practice is the art of managing uncertainty

Accept that you will get it wrong, and it will hurt and that someone will complain.

Tip 7 Beware of Deception

<u>Perception</u> is the appearance, not reality – beware of this gap
Is the situation all that it seems? How would look to another?
What would it look like to an outsider? Another GPR, my trainer, a lawyer?

<u>Anxiety</u>
Anxiety is infectious. Anxious patients can make anxious doctors

Is there a good cause for anxiety or are the patients perceptions out of line with reality?
Is my or the patients anxiety making the situation look worse than it is?
Is the diagnosis anxiety?

Check things out
Do a mental health assessment
Temporise. Maybe things will look very different next time you see them

Tip8 Don't deny uncertainty , use a black box

Whilst not denying uncertainty you can work around it. Separate the unknown and the unfathomable and put it in a black box and work with the known bit that you have control over.

Tip 9 Separate the Zebras from the Horses

In the frenzy of a busy clinic it can be difficult to know what to do when a rare disease comes to mind during the consultation Do we investigate to rule out all disease processes (all zebras) regardless of the cost or do we look only for those disease that are likely (assuming that all the hoof beats are horses) Neither extreme is optimal

- Common disease occur commonly and rare disease occur rarely
- The mind is an imperfect estimator of risk
- The unusual presentation of a common disease is generally more unlikely than the usual presentation of an uncommon disease
- Not everything we are taught is correct.

Green C, **Holden J**.

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General practice encounters often involve vague symptoms, potentially representing illness in its early stage. Managing such undifferentiated symptoms is difficult, but one of the key tasks of the general practitioner is to discover serious disease at an appropriate stage whilst also minimising over-investigation. Although the diagnostic process and methods of coping with uncertainty in general practice have been described, the early course of disease, especially undifferentiated presentations, is poorly understood. PMID: 14611009 [PubMed - indexed for MEDLINE]

Four Principles for separating Zebras into Horses Worksheet

Common diseases occur commonly and rare diseases occur rarely

Over the next **10 minutes** please complete the following worksheet as an individual.

Write down your case and include your differential diagnosis.

Differential diagnosis

Principle 1

- *Common disease occur commonly and rare disease occur rarely*

Look for red flags and distractions i.e. things that may lead you astray.

1. Are there any red flags?

2. Are there any distractions ie things that may lead you astray?

3. How reliable is the feature?

4. How often is it encountered in the rare disease?

5. How often is it encountered in the more common disease?

Principle 2

- *The mind is an imperfect estimator of risk*

1. Is the story "to good to be true" and did I lead the witness?

2. Has recent experience affected my judgement?

3. Is my experience with this condition too limited?

Principle 3

- *The unusual presentation of a common disease is generally more unlikely than the usual presentation of an uncommon disease*

Corollary , screening everyone for a rare disease is not helpful. When faced with an unusual clinical feature, ask first if it can be explained by something other than rare disease

Are there any tests that would be helpful?

Principle 4

- *Not everything we are taught is correct.*

Do not attach too much importance to it e.g. from university Professor, look for support from the literature.

Do I have reliable information?

In pairs discuss you case and take your colleague through the model as applied to your case 10 mins per case**(20 mins total)**

Join together with another pair and discuss what issues using the model has raised for you? Has it raised any learning needs for you? (**10 mins)**

"Uncertainty looms over all of medicine, and you must be able to cope with the pain and guilt that it brings"

Issues

- Uncertainty is inevitable in primary care (and medicine in general)
- Need to use relationships skilfully
- Equipoise – exploring individual's risk-benefit equations

How we respond to uncertainty (how does uncertainty make us feel?)

- Our behaviour with the patient
- Our behaviour with others as a result of our uncertainty
- The novelty factor

Aggravating factors in uncertainty

- The doctor
    - The impostor syndrome – the risk of being found out
    - Personality – some personalities will find uncertainty more difficult
    - The black hole – "I don't know what I don't know"
    - Low self-esteem in the doctor
    - The doctor's need to help
    - Doctors beliefs about societal obligations to protect the vulnerable
- The patient
    - A dreaded outcome e.g. death, a complaint
    - Insoluble problems
    - An uncertain degree of risk in the decision-making process
    - Somatisation
    - Natural variations in the disease process
    - Dependency by the patient on the medical model resulting in the patient expecting that the doctor always will know the answer
- The consultation
    - A problem not recognised by pattern recognition
    - Choices in management
    - Doctor-centred consulting resulting in difficulty with sharing uncertainty with the patient and the ability to encourage or even receive feedback from the patient
    - The doctor's and the patient's personal boundaries
    - Medical decision making requires combinatorial analysis to comprehend patients' uniqueness and avoid harmful, unnecessary trial and error
- Society
    - Socially mediated sense of threat eg mass media or lobby groups

Developing strategies

- For the doctor

    - Information systems and decision support
    - Emotional intelligence
    - Exploring personal resistance to risk-taking
    - Reality-checking – "what is really likely?"
    - Narrative based medicine
    - Developing the doctor's personal self-awareness
    - Building personal resilience – emotional support, healthy living
    - Deconstructing the "pain and guilt"
    - Sharing uncertainty – patient, colleagues
    - Support – mentoring/co-mentoring
- In the consultation
    - The disease-illness model
    - Negotiation in decision-making – risk management
    - Sharing responsibility for decision-making
    - Ideas, concerns and expectations
    - Patient-centred feelings-based communication

7 habits of highly effective people

Emotional intelligence

- "Accept uncertainty as part of life because it is." What are some simple things they can do to accept uncertainty without inviting anxiety?
- How can you accurately assess the risk of physical or emotional danger?
- How can you "re-educate your brain" to stop obsessing about potential dangers?
- How can using affirmations help restore inner peace and what are some examples of them?
- Stress-reduction techniques
- How can you raise your "frustration tolerance" and how does the help you to cope with uncertainty?
- How could forgiveness help them cope with uncertainty and anxiety?
- Connecting with others to create meaning. Why and what are some ways to do this?
- Flexibility in the face of change yields immeasurable opportunities for positive growth and renewal. How so and what do you suggest for becoming more flexible?

Brad Cheek: These two pages are taken from an excellent web site *Well Close Square* http://www.gp-training.net/

Uncertainty

Types of uncertainty

- Teacher
- Patient
- Doctor/Registrar

- Knowledge
- Diagnosis
- Management
- Treatment
- Agenda (overt/hidden)
- Shared Uncertainty - with patient

- Resources
  - Can we implement plans?

- Business
  - Organisation
  - Finance

Concept of the 'safety-net' is essential

Uncertainty in the doctor depends on several aspects

- Knowledge
- Support
- Confidence

- How much uncertainty can we tolerate?
- Use of time
- Overkill (too many tests, etc.)

Dealing with uncertainty

- Treatment & management
  - Increased number of tests
  - Second opinions
  - Use of time
  - Safety netting
- Treatment
  - Second opinions
  - Increased knowledge
  - Keeping up to date
  - Alternative options
- Management
  - Sharing patient's agenda
  - Health beliefs
  - Negotiation
  - Explanation
  - Identifying and dealing with patient's actual problem