Thinking about thinking

Why we sometimes get it wrong in health care

and how we might make it more right

Metacognition

Plan

1. Some thoughts about uncertainty and how a pursuit of certainty can cause more harm than good
    - Featuring Aristotle, Hippocrates, Dan the weatherman and a little boy with belly-ache
2. Some thoughts about thinking and how biases can lead us to the wrong thoughts
    - Featuring the characters from Inside Out, Thomas Bayes, Daniel Kahneman, Pat Crosskerry and Willie Sutton
3. Hospital HealthPathways and how they might help us
    - Featuring health pathways

First,

Some thoughts about uncertainty

The Clinical Task

- History
- Examination
- Investigations
- Impression
- Plan

The Clinical Task

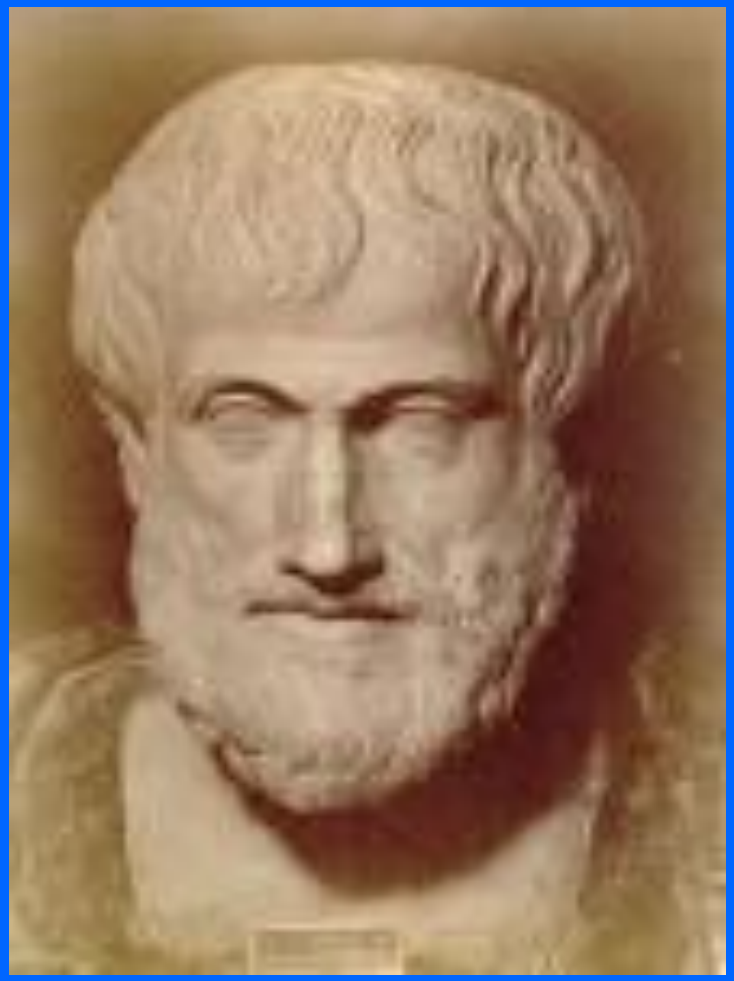
- History
- Examination
- Investigations
- Impression
- Plan

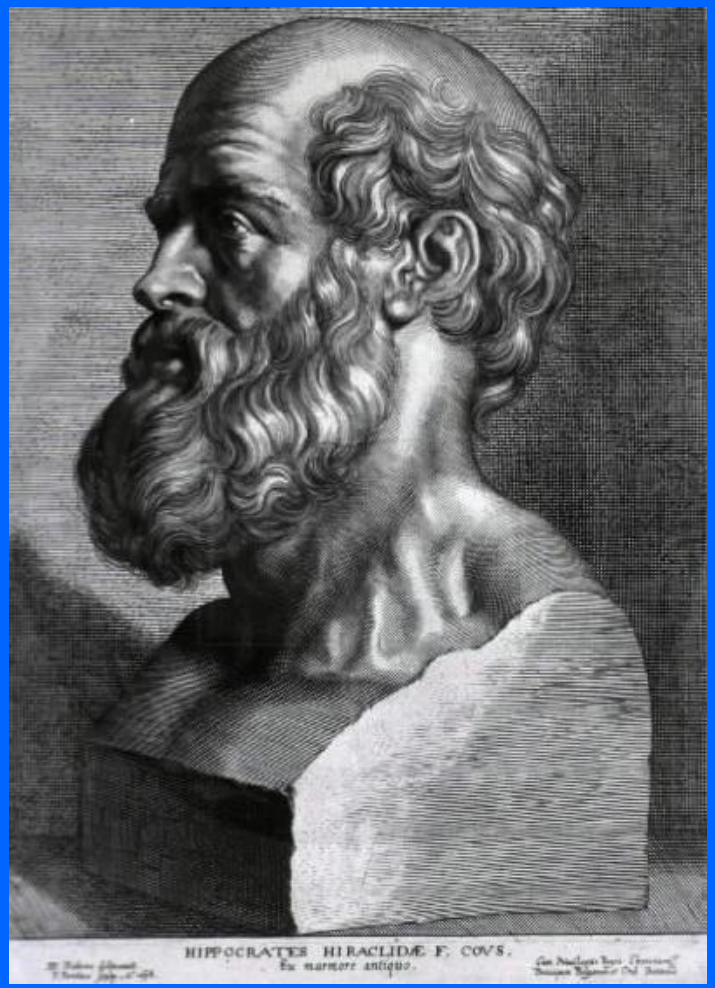
Evolving lists of differentials

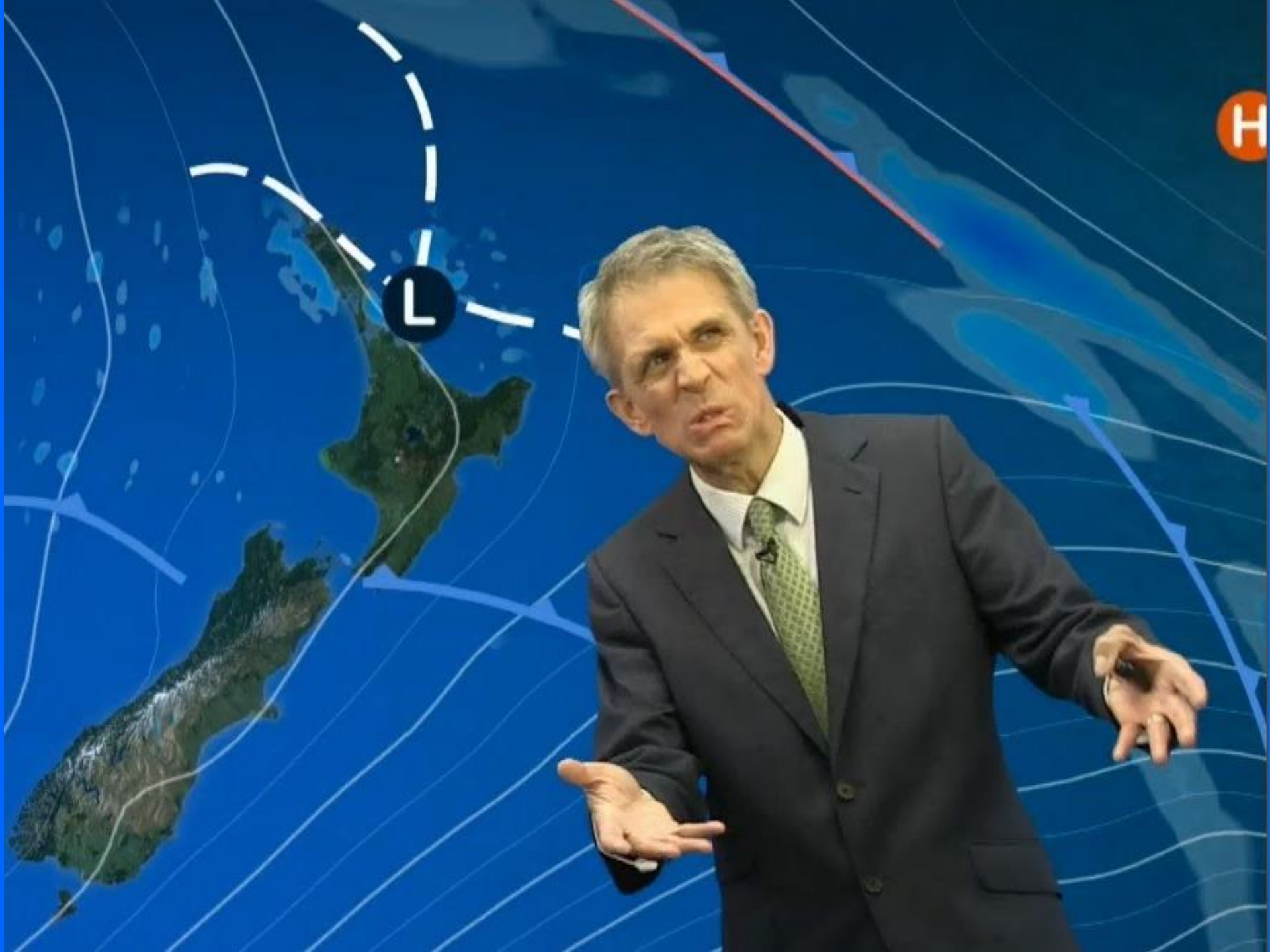
Two lists forming

Using contextual probabilities (Baysian thinking)

Medicine is an imprecise science






L
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Diagnostic Decision Making Research

- The PERC (Pulmonary Embolism Rule-out Criteria).
- Derivation Series;
  - Of all the patients investigated for PE can we retrospectively identify the features which correlated with the absence of a PE
- Validation Series;
  - Can we then safely apply these features (the tool) to a prospective group of patients in whom PE is being considered.

Diagnostic Decision Making Research

- The PERC (Pulmonary Embolism Rule-out Criteria).
  - Younger than 50 years old
  - pulse <100 per/min
  - SaO2>94%
  - No unilateral leg swelling
  - No haemoptysis
  - No Surgery/trauma
  - No previous PE/DVT.
  - No hormonal treatment

97.3% sensitive

97.3% sensitive = 2.7% false negatives

That is, of every 100 patients who have PE, this tool would miss 2 or more.

1-2% false negative rate seems to be the best we can do.

What does this mean for us?

- If a patient fails PERC then we apply Wells.
- If Wells defines ‘low risk’ and a D-dimer is negative, then PE is ruled out (similar sensitivity).
- For all others (the majority) they need a V/Q scan or a CTPA.

What does this mean for us?

- In Chch ED we investigate 1200 PE patients per year.
- Of these, only 100 actually have a PE.
- If we have a 2% miss rate we would send home 2 patients each year with untreated PE.
- The mortality of PE is about 5% - so sending home 2 PEs per year would result in one death every 10 years.

What does this mean for us?

- The definitive test – CTPA - causes death by radiation induced fatal cancer in about 1 in 2000 patients (more in some, less in others).
- If we CT all of the 1200 (to approach 100% sensitivity) we would cause about 1 death every 20 months.
- It seems a 1 to 2% miss rate is about the right balance so that benefit exceeds harm.

What does this mean for us?

- 2 PEs missed per annum
- Probably a few Acute Coronary Syndrome, Sub Arrachnoid Haemorrhages, Appendicitis, and so on.
- In fact, missed diagnoses of this significance occur much less frequenlty than this.

What does this mean for us?

- So;
  - Missing significant diagnoses is inevitable.
  - Missing too few significant diagnoses probably means we have passed the ‘equipoise’ point, where harm starts to exceed benefit.
  - We seem to be missing diagnoses less than we should, which means we are probably harming patients by over investigating.

Medicine is an imprecise science

- Conceding and sharing the imprecision is important;

Medicine is an imprecise science

- Conceding and sharing the imprecision is important;

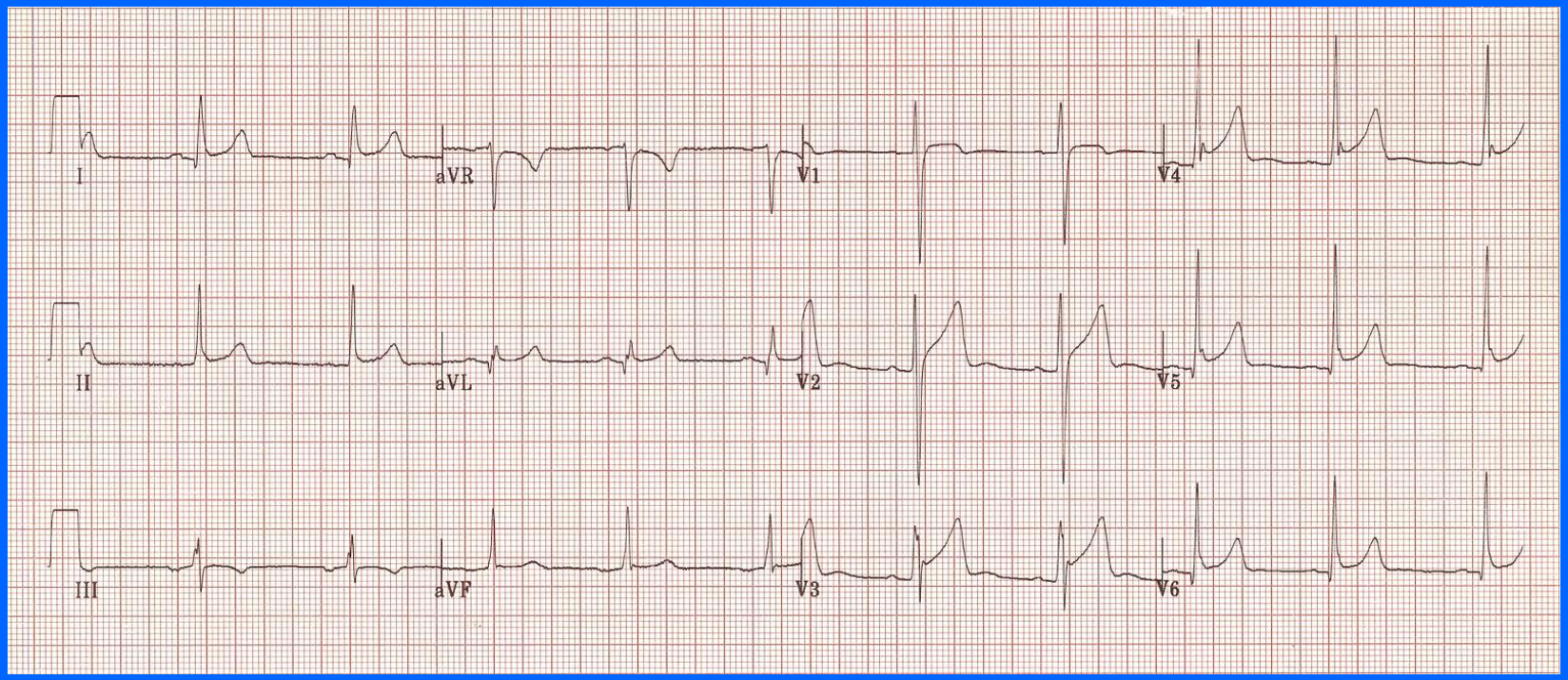
Back to Metacognition

Some evolution of our thinking about thinking

- Thomas Bayes – probability
- Daniel Kahneman – fast and slow thinking
- Pat Croskerry – cognitive biases

Baysian thinking
e.g. pre-test probability

What do you think of this ECG?



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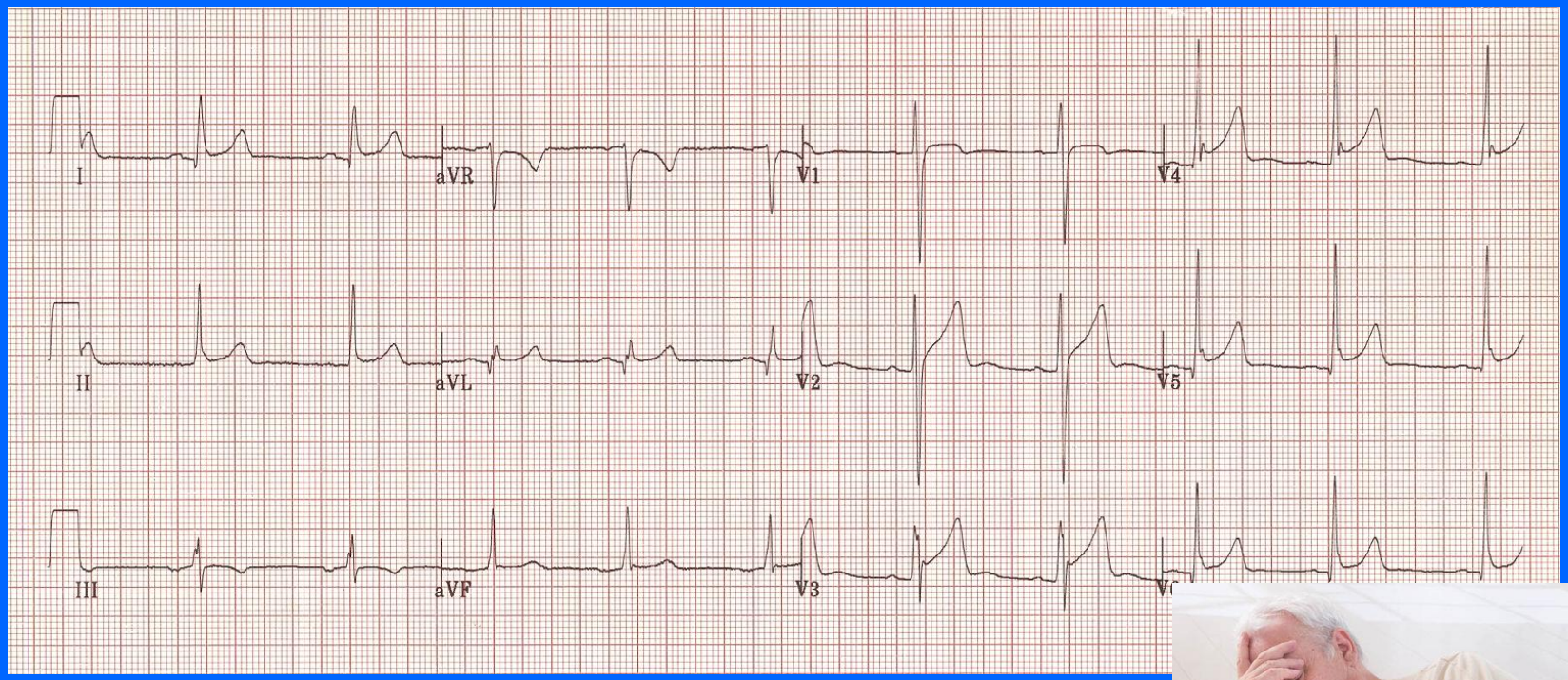

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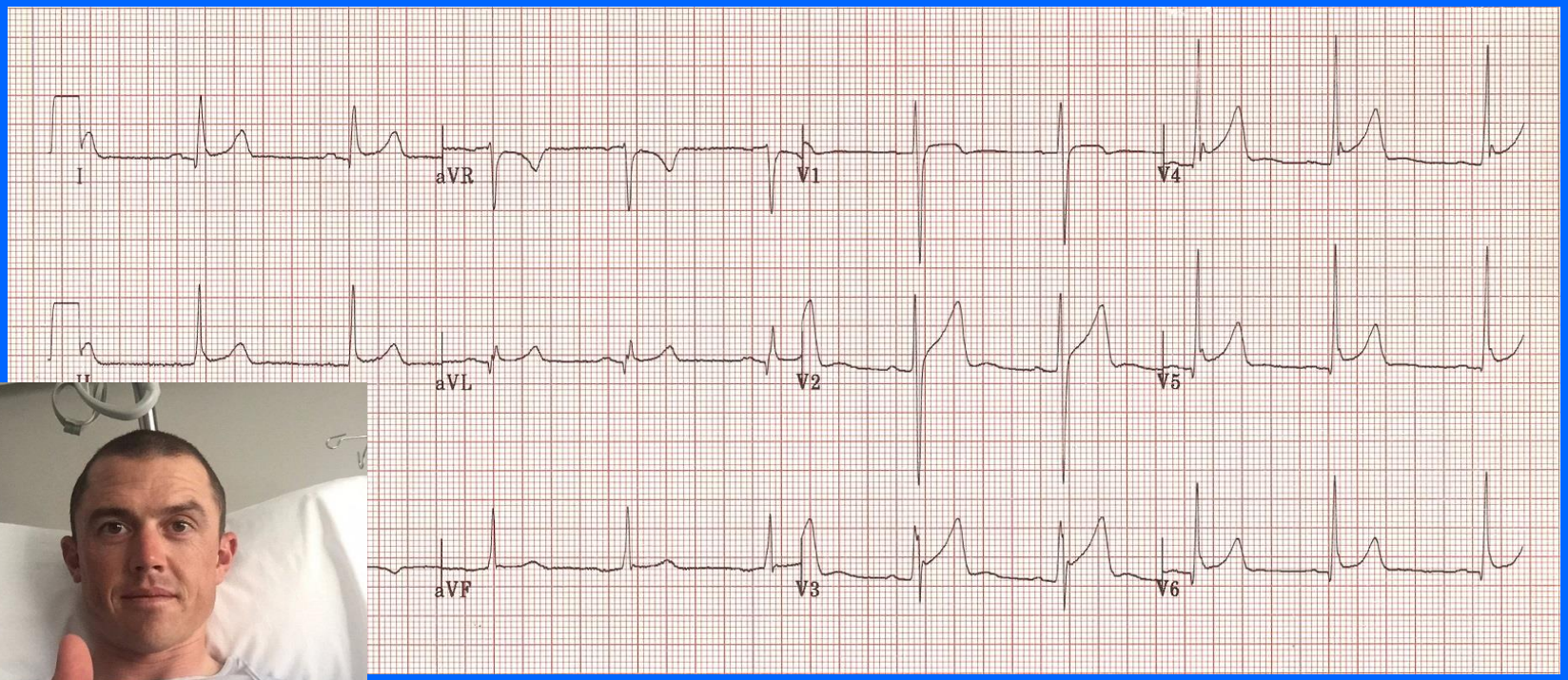
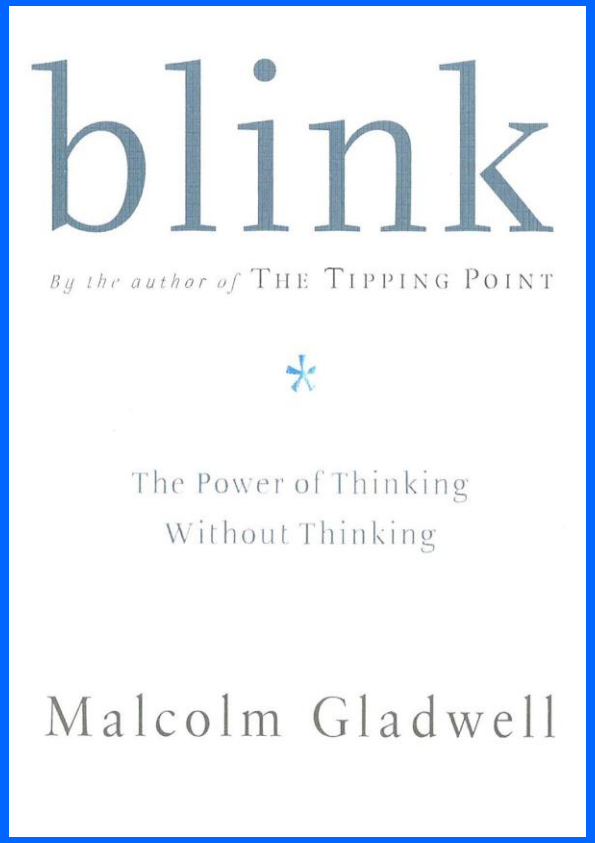
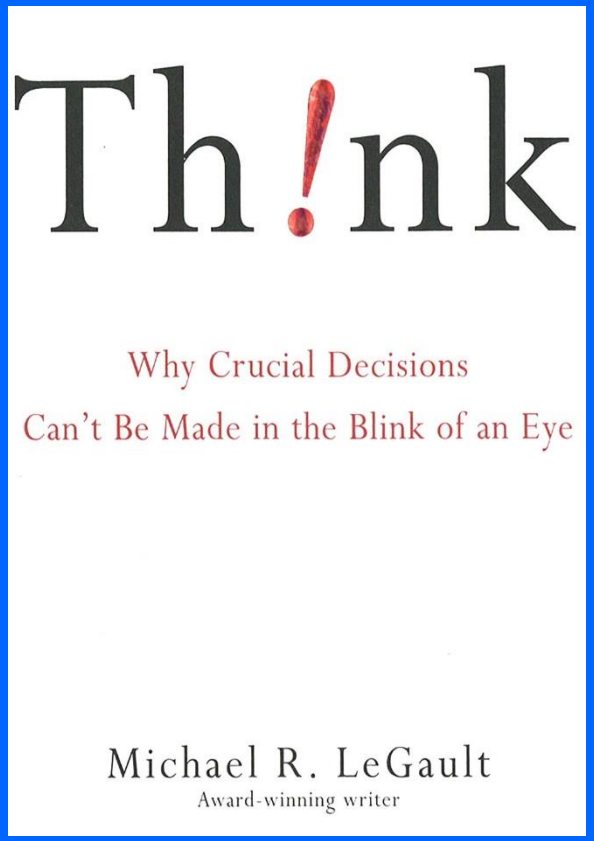
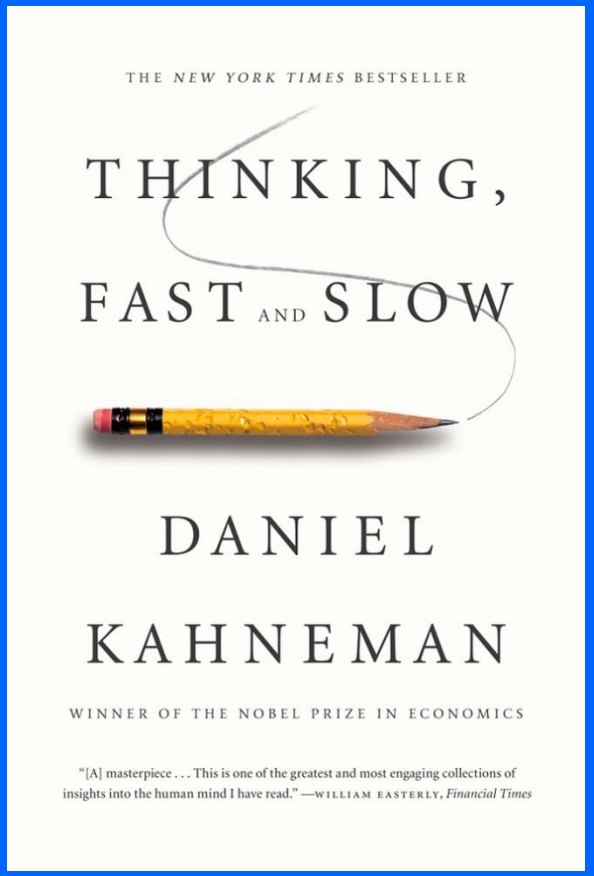




2005



2006



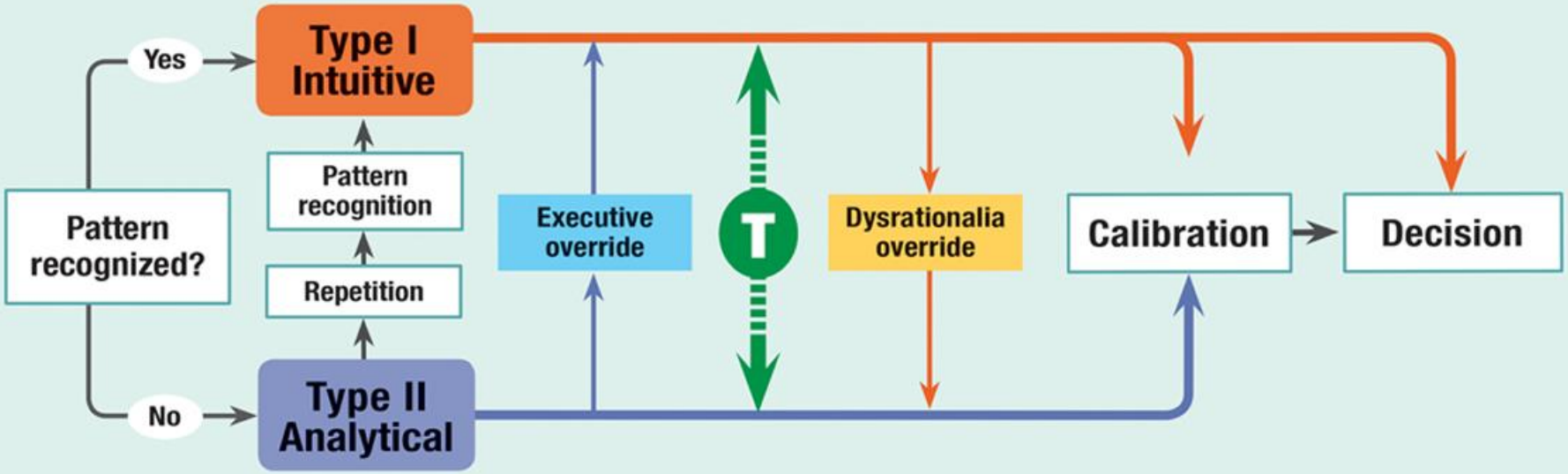
2011

Fast and slow thinking

Pablo Picasso

Dual Process Theory

Dual process thinking



Croskerry P, Singhal G, Mamede S: Cognitive debiasing 1: Origins of bias and theory of debiasing. BMJ Qual Saf 2013; Oct; 22(suppl 2):ii58–64.

Biases

- Lots of them described
  - Contextual (about the context)
  - Affective (about the clinician)
  - Social (about the clinician's view of the patient)
- They mostly live in the intuitive mode
- We do most of our thinking in the intuitive mode
- So, we have a problem

Contextual biases

- About the context
  - What the signs and symptoms appear to represent
  - What others appear to be thinking
  - What the patient's past and behaviour appear to be telling us

Aggregate bias	Gender bias	Psych-Out Errors
Anchoring	Hindsight bias	Representativeness
Ascertainment bias	Multiple alternatives	Search satisficing
Availability	Omission bias	Sutton's Slip
Base rate neglect	Order effects	Triage-Cueing
Commission bias	Outcome bias	Unpacking principle
Confirmation bias	Overconfidence	Vertical line failure
Diagnostic momentum	Playing the odds	Visceral bias
Attribution error	Posterior prob.	Ying-Yang Out
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Sutton’s Slip

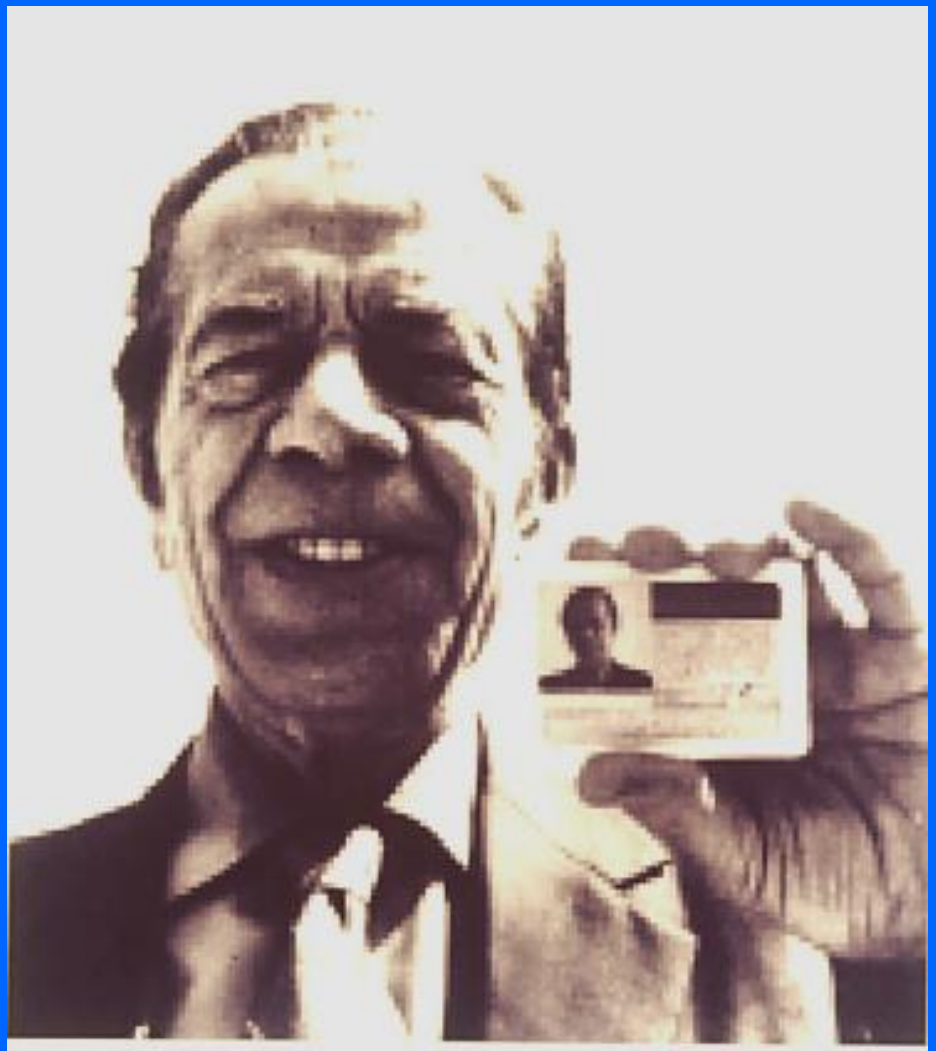
74 year old man calls the ED for advice

- With
  - Cramping abdominal pain
  - Loose motions
  - Nausea and some vomiting

74 year old man calls the ED for advice

- With
  - Cramping abdominal pain
  - Loose motions
  - Nausea and some vomiting

- Sounds like gastroenteritis
  - Keep the fluids up



Willie Sutton (1901 - 1980)

Sutton's Slip

Going for where the money is
(common things are common)

Triage Cueing

Geography is destiny

Patient in the Eye Room

- A 42 year old male presents to the ED with a complaint of visual blurring
- He has no significant past medical history and his vitals are stable other than an elevated respiratory rate
- His physical examination is entirely normal, including fundoscopic exam
- He is reassured and sent home
- He returns by ambulance the next day, very unwell
- Diagnosis, methanol poisoning

Methanol model airplane fuel

Anchoring

58 year old woman

- Sudden onset of back pain
- GP referred ?aortic aneurism
- Triage nurse assumed AAA
- Referred Gen Surg
- Admitted Gen Surg
- Died Gen Surg

Psych-Out Error

- Faulty perception of the psychiatric patient
- Underestimation of medical co-morbidity
- Mis-diagnosis of medical conditions as psychiatric

42 year old male schizophrenic is brought into the ED by his landlady

She says he has been ‘acting strangely’ lately,

going out into the street in his underpants

Vital signs

- Temp = 38.5
- P = 105
- BP = 110/58
- RR = 32

Vital signs

Not done

Affective Biases

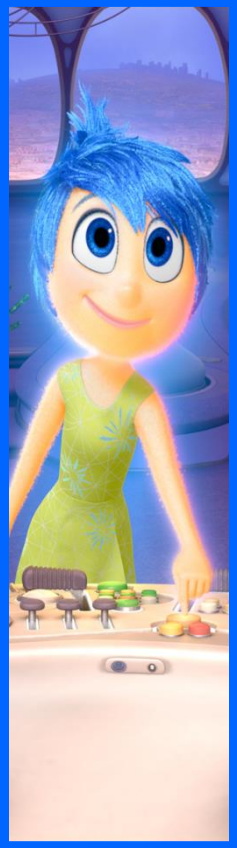
About the clinician

- Stress
- Fatigue
- Sleep deprivation
- Cognitive overload
- Interruptions
- Distractions
- Circadian, seasonal mood variation
- Mood disorders
- Anxiety disorders

Social Biases

About the clinician's view of the patient

- Racial
- Gender
- Obesity
- Ageism
- Psychiatric illness
- Drug/alcohol dependency



Cognitive biases

- Will work in the intuitive mode to lead us to premature and incorrect conclusions
- Are attractive because we want answers and we want them with minimal effort
- Don’t tell us when they’re active

Cognitive characters

With apologies to Disney Pixar

Cognitive characters

- Fast Eddie
  - The type 1 (intuitive) voice

Cognitive characters

Annie Analytical

– the type 2 (analytical) voice

Cognitive characters

The biases;

Connie Context

Alfred Affective

Suzie Social

Cognitive characters

With apologies to Disney Pixar

So,

- Fast thinking is good, but biases can cause us to jump to wrong conclusions
- Double check (toggle to type 2) especially when sending someone home

‘Don’t forget to ask Annie’

Debiasing Strategies

- Know about DPT and where errors are
- Understand the general nature of the biases
- Learn specific strategies debiasing
  - Toggle into type 2 thinking
  - Forcing functions

Debiasing Strategies

- Know about DPT and where errors are
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Toggle to two

- Recap/synchronise with patient
  - Good for relations too
- Write it down
  - mental representation
- Present it verbally
  - Mental representation
  - Team decision making
- Does it all tie together?
  - Does something not fit?
  - Might it fit something else?
- Could it be something completely different?
  - Ask someone, or look it up
- Have I ruled out the nasties?

Forcing functions

- Ideally electronic and non voluntary
  - E.g. electronic EWS scoring
  - Forcing inclusion of RR before filing
  - Automatically paging ICU outreach
- Standards and protocols (quasi – forcing)
- Pathways (more checklist than forcing)

CANTERBURY Hospital HealthPathways

Hospital HealthPathways

Using HealthPathways

- What is HealthPathways?
- How to use HealthPathways
- How to send feedback on a pathway
- Install shortcuts to HealthPathways
- Watch an Introduction to Hospital HealthPathways (7:39)

Health System News

28 Sep — **BCG vaccination still unavailable for the under-fives**

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A new pathway covering the assessment and management of a very unwell or deteriorating patient is now available. Based on a step-by-step approach, the ABCs pathway provides details on how to get help, and basic airway interventions.

Community HealthPathways | HealthInfo | RMO Handbook

The Pink Book | NZ Formulary for Adults | NZ Formulary for Children

New and Updated Pathways

19 Sep	NZ Early Warning Score	NEW
19 Sep	ABCs	NEW
11 Sep	Hauora Māori (Māori Health) Competency	NEW
08 Sep	Accident Compensation Corporation	NEW
04 Sep	Multi-drug Resistant Organisms (MDRO)	NEW
01 Sep	Smoking Cessation Advice	UPDATED
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25 Aug	Fluid Management in Adults	UPDATED

View more changes

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21 Sep

ERMS radiology requests

ERMS clinical details now go directly into radiology reports. Read more...

20 Sep

New national standard for NZEWS

The New Zealand Early Warning Score (NZEWS) has replaced the Canterbury DHB local inpatient early warning score system (CDHB EWS). Read more...

11 Sep

Hauora Māori (Māori Health) Competency

Hei whakanui i te wiki o te reo Māori, he huarahi hou tō tātou e aro ana ki te whakawhāiti i te nui o te weherua o te hauora Māori i tō te hapori whānui. Tirohia te Āheitanga Hauora Māori.

To celebrate te wiki o te reo Māori, we have a new pathway aimed at narrowing the gap in health outcomes for Māori compared with the general population. See Hauora Māori (Māori Health) Competency.

08 Sep

Cannabis-based product treatment

Cannabis-based Products is a new pathway on the evidence for, and methods of, prescribing cannabis-based products.

07 Sep

Podiatry funding changes for patients with diabetes

Podiatry funding changes to high and moderate risk foot in patients with diabetes. See Foot Screening in Diabetes.

Using HealthPathways
HealthInfo
Clinical Protocols
Canterbury Health Contacts
Hospital HealthPathways
NZ Formulary (NZF)
NZF for Children
Education

New and Updated Pathways

05 Oct	Vitamin D Deficiency in Children	UPDATED
04 Oct	Non-acute Orthopaedic Wrist and Elbow Assessment	NEW
04 Oct	Non-acute Shoulder Assessment	NEW
04 Oct	Non-acute Orthopaedic Hip and Knee Assessment	NEW
04 Oct	Non-acute Orthopaedic Foot and Ankle Assessment	NEW
04 Oct	Non-acute General Orthopaedic Requests	NEW
25 Sep	Headaches in Children	UPDATED
22 Sep	Low Birth Weight Infants	UPDATED
	Termination of	

CANTERBURY Hospital HealthPathways

About Hospital HealthPathways

- Electronic repository of clinical guidance;
  - clinical (e.g. drug choice and dose), and
  - process (e.g. who to call and how to find them)
- Replacing the **Blue Book**
- Based on the Community HealthPathways model
- Collaborative, consultative and evidence based*
- For all hospital health professionals

CANTERBURY Hospital HealthPathways

Process of pathway development

- Clinical topic is chosen
- Intelligence is gathered – meetings, documents
- Clinical Editor, Technical writer and Subject Matter Experts appointed
- Iterations are developed
- Circles of consultation - other experts, end users
- Publication

CANTERBURY Hospital HealthPathways

HHP live site

Utilization

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View more changes

Intracranial Haemorrhage on Warfarin

This pathway covers reversal of warfarin-related coagulopathy in patients with intracranial haemorrhage while on warfarin.

There is a different process for patients with:

- Oral thrombin inhibitors (dabigatran) related intracranial haemorrhage. See Bleeding on Dabigatran.
- Other life-threatening bleeds while on warfarin

Quick Links

Intracerebral Haemorrhage

Bleeding or Overdose on Warfarin

About intracranial haemorrhage in patients on warfarin

Assessment

1. Arrange immediate CT head.
2. To prevent any delays in administering intravenous reversal of coagulopathy:
   - Do not wait for the results of an INR. Reversal is required even if INR is in the sub-therapeutic range (INR 1.5 or above).
   - Before CT head, arrange Prothrombinex VF and fresh frozen plasma (FFP).

   Note: Prosthetic heart valves are not a contraindication to reversal in this situation as the risk of thrombotic events during this short term reversal appears very low.
3. Reversal should not be given until CT confirmation of intracranial bleed. In the rare circumstances that a CT cannot be done and reversal is deemed appropriate and urgent, discuss with the consultant.

Management

Immediate warfarin reversal

1. As soon as intracranial haemorrhage is confirmed by CT Head, call the ED, ward or ICU staff and ask them to:
   - Reconstitute the required dose of Prothrombinex VF, which should have arrived by now, in preparation for administration. If the CT is normal, the Prothrombinex can be returned unused.
   - Tell the Blood Bank to prepare and send the FFP.
   - Draw up 5 mg of phytomenadione (vitamin K) for IV administration.
2. Immediately return with the patient to Emergency Department, ward, or ICU.
3. Administer reversal as quickly as possible:
   - Stop warfarin.
   - Give Prothrombinex VF 50 units/kg IV, immediately on its arrival.
   - Give FFP 1 unit (approximately 300 mL) on its arrival from the Blood Bank.
   - Give phytomenadione (vitamin K) IV 5 mg immediately. Phytomenadione (vitamin K) takes 6 to 24 hours to be effective.
4. Monitor reversal.

Other acute management

1. Manage according to location of bleeding (including acute blood pressure management, where appropriate):
   - Intracerebral haemorrhage, also known as intraparenchymal haemorrhage
   - Subarachnoid haemorrhage

ICH Search

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- Discharge and Community Support
- Emergency Presentations
  - Acute Abdominal Pain
  - Altered Level of Consciousness
  - Anaphylaxis in Adults
  - Cardiac Arrest in Adults
  - Chest Pain
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  - Hypothermia
  - Intracranial Haemorrhage on Warfarin
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4. Monitor reversal.

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   - Subarachnoid haemorrhage
   - Subdural haemorrhage
2. Ensure ABCs are maintained.
3. Ensure adequate analgesia.
4. If the patient has been intubated for airway protection, request ICU admission.
5. If for neurosurgical intervention, arrange acute neurosurgical admission.
6. Otherwise, request acute general medicine admission.
7. Longer term management of anticoagulation:
   - Requires an individual assessment of the risks and benefits of restarting warfarin or not.
   - Most should not restart warfarin. However, it is dependent on indications for anticoagulation, location and severity of bleed, comorbidities, age, and concurrent medications.

Request

- To request Prothrombinex and FFP, contact the Blood Bank.
- If coagulation screen immediately after treatment is still abnormal, contact the Transfusion Medicine Specialist via the Blood Bank or seek acute haematology advice.
- If the patient has been intubated for airway protection, request ICU admission.
- If for neurosurgical intervention, arrange acute neurosurgical admission.
- If not for neurosurgical intervention, request acute general medicine admission for ongoing management.

Information

References

Page Information

Have you read the disclaimer?

Information about this HealthPathways document (191297):

Document Owner:	Not assigned (see Document development and approval)
Last Updated:	July 2017
Next Review:	February 2019
Keywords:	dabig,

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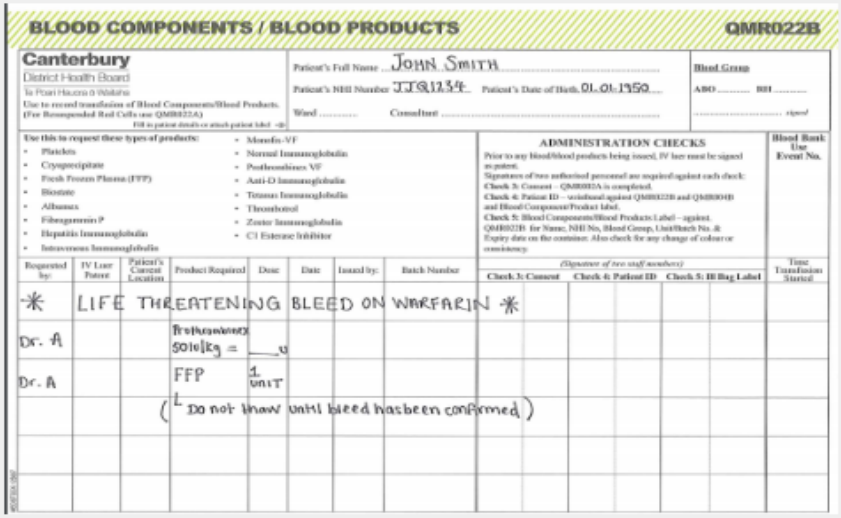
   - Do not wait for the results of an INR. Reversal is required even if INR is in the sub-therapeutic range (INR 1.5 or above).
   - Before CT head, arrange Prothrombinex VF and fresh frozen plasma (FFP).

Prothrombinex-VF and fresh frozen plasma (FFP)

Obtain Prothrombinex-VF and fresh frozen plasma for patients on warfarin with life-threatening bleeding (including intracranial bleeding):

1. Complete the Blood Components Form (QMR022B). Clearly write "Life threatening bleed in patient on warfarin".



BLOOD COMPONENTS / BLOOD PRODUCTS QMR022B

Canterbury District Health Board

Patient's Full Name: JOHN SMITH
Patient's NHI Number: JJS1234 Patient's Date of Birth: 01.01.1950
Ward ..... Consultant .....
Blood Group ABO ..... RH .....

Use this to request these types of products:
- Platelets
- Cryoprecipitate
- Fresh Frozen Plasma (FFP)
- Albumin
- Fibrinogen P
- Hepatitis Immunoglobulin
- Intravenous Immunoglobulin
- Monofix-VF
- Normal Immunoglobulin
- Prothrombinex VF
- Anti-D Immunoglobulin
- Tetanus Immunoglobulin
- Thrombotrol
- Zoster Immunoglobulin
- C1 Esterase Inhibitor

ADMINISTRATION CHECKS
Prior to any blood/blood products being issued, IV line must be signed as patent.
Signatures of two authorised personnel are required against each check:
Check 3: Consent – QMR002A is completed.
Check 4: Patient ID – sticker/seal against QMR022B and QMR004B and Blood Component/Product label.
Check 5: Blood Components/Blood Products Label – against QMR022B for Name, NHI No, Blood Group, Unit/Batch No. & Expiry date on the container. Also check for any change of colour or consistency.
(Signature of two staff members)

Blood Bank Use Event No.

Requested by:	IV Line Patent	Patient's Current Location	Product Required	Dose	Date	Issued by:	Batch Number	Check 3: Consent	Check 4: Patient ID	Check 5: ID Bag Label	Time Transfusion Started
*			LIFE THREATENING BLEED ON WARFARIN *								
Dr. A			Prothrombinex 50iu/kg = ___u								
Dr. A			FFP	1 unit							
			(Do not thaw until bleed has been confirmed)								

2. Include required dose of Prothrombinex-VF, based on the patient's estimated weight (50 units/kg).
3. Request 1 unit (approximately 300 mL) fresh frozen plasma (FFP). If bleeding is not yet confirmed e.g., awaiting CT head, write on the form "Do not thaw until bleed has been confirmed".
4. Send in the Lamson tube, or arrange sample delivery, to the Blood Bank and inform them via phone.

An emergency supply of Prothrombinex-VF is available at:

- Burwood Hospital
- Ashburton Hospital

Note: Prosthetic heart valves are not a contraindication to reversal in this situation as the risk of thrombotic events during this short term reversal appears very low.

3. Reversal should not be given until CT confirmation of intracranial bleed. In the rare circumstances that a CT cannot be done and reversal is deemed appropriate and urgent, discuss with the consultant.

Intracranial Haemorrhage on Warfarin

This pathway covers reversal of warfarin-related coagulopathy in patients with intracranial haemorrhage while on warfarin.

There is a different process for patients with:

- Oral thrombin inhibitors (dabigatran) related intracranial haemorrhage. See Bleeding on Dabigatran.
- Other life-threatening bleeds while on warfarin

Quick Links

Intracerebral Haemorrhage

Bleeding or Overdose on Warfarin

About intracranial haemorrhage in patients on warfarin

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Management

Immediate warfarin reversal

1. As soon as intracranial haemorrhage is confirmed by CT Head, call the ED, ward or ICU staff and ask them to:
   - Reconstitute the required dose of Prothrombinex VF, which should have arrived by now, in preparation for administration. If the CT is normal, the Prothrombinex can be returned unused.
   - Tell the Blood Bank to prepare and send the FFP.
   - Draw up 5 mg of phytomenadione (vitamin K) for IV administration.
2. Immediately return with the patient to Emergency Department, ward, or ICU.
3. Administer reversal as quickly as possible:
   - Stop warfarin.
   - Give Prothrombinex VF 50 units/kg IV, immediately on its arrival.
   - Give FFP 1 unit (approximately 300 mL) on its arrival from the Blood Bank.
   - Give phytomenadione (vitamin K) IV 5 mg immediately. Phytomenadione (vitamin K) takes 6 to 24 hours to be effective.
4. Monitor reversal.

Other acute management

1. Manage according to location of bleeding (including acute blood pressure management, where appropriate):
   - Intracerebral haemorrhage, also known as intraparenchymal haemorrhage
   - Subarachnoid haemorrhage
   - Subdural haemorrhage

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     Prothrombinex administration
     - Prothrombinex-VF rapidly reverses the coagulopathy within 15 minutes.
     - When reconstituting Prothrombinex-VF, do not shake the vials. For full reconstitution instructions see the blood resource folder or How to administer Prothrombinex VF – Quick guide.
     - If life-threatening bleeding (including intracranial bleeding), give IV at a rate of 10 mL/minute. For all other indications, use standard rate of 3 mL/minute.

   - Tell the Blood Bank to prepare and send the FFP.
   - Draw up 5 mg of phytomenadione (vitamin K) for IV administration.
2. Immediately return with the patient to Emergency Department, ward, or ICU.
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   - Subarachnoid haemorrhage
   - Subdural haemorrhage
2. Ensure ABCs are maintained.
3. Ensure adequate analgesia.
4. If the patient has been intubated for airway protection, request ICU admission.

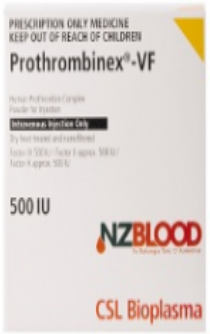
How to administer Prothrombinex VF - Quick Guide

Presentation

- Prothrombinex®-VF is supplied as a 500 IU vial containing 500 IU of factor IX, 500 IU of factor II and 500 IU of factor X. Each single pack contains one vial of product, one 20 mL vial of Water for Injections and one Mix2Vial filter transfer set.

ABO Compatibility

- Compatibility is not relevant for manufactured (fractionated) plasma product transfusion



Storage and Infusion

- See the Mix2Vial System for intructions on reconsitution of the vial (may take up to ten minutes to reconstitute).
- Allow the vials to reach room temperature (between 20°C and 30°C) before reconstituting. Infuse promptly.
- Do not refrigerate Prothrombinex®-VF once it has been reconstituted.
- Multiple vials of the same product may be pooled together.
- Draw up into a syringe and administer via a syringe pump or by IV bolus.
- **Note!** Administering Prothrombinex®-VF to patients who are not warfarinised substantially increases the risk of thromboembolism
- See the Mix2Vial page for instructions on spiking the bottle

Warfarin reversal apps

An app for reversing warfarin and guiding your perioperative anticoagulation now available in the Apple iTunes and Android Play stores (free). Scan or click on the QR code.

Precautions

- Read manufacturer's instructions carefully.
- Always observe for turbidity / particulate material (floaters).
- Pumps use is acceptable.

Rate

- Prothrombinex®-VF should be given as an infusion or slow IV push at 3 mL/min (180mL/hour) or 7 minutes a vial.
- IV infusion should be completed within 3 hours of reconstituting bottle

Dose

- Prothrombinex®-VF for reversal of warfarin: 25-50 IU/kg in the following situations:
  - INR is >10.0 and the patient is at high risk of bleeding
  - INR is > 2.0 and there is clinically significant bleeding

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Monitoring coagulation after warfarin reversal

- Monitoring after reversal is essential.
- INR alone is not useful for monitoring the effectiveness of clotting factor replacement. It is only useful for monitoring warfarin use in steady state situations.
- Minimum monitoring must include coagulation screen 15 minutes after administering Prothrombinex-VF and FFP, then:
  - at 4 to 6 hours, reflecting shortest half-life of factor VII and onset of action of phytomenadione (vitamin K), and
  - at 24 hours.
- If clinically unstable, monitor more frequently.
- If abnormal coagulation at any time, contact the Transfusion Medicine Specialist via the Blood Bank or seek acute haematology advice.

Other acute management

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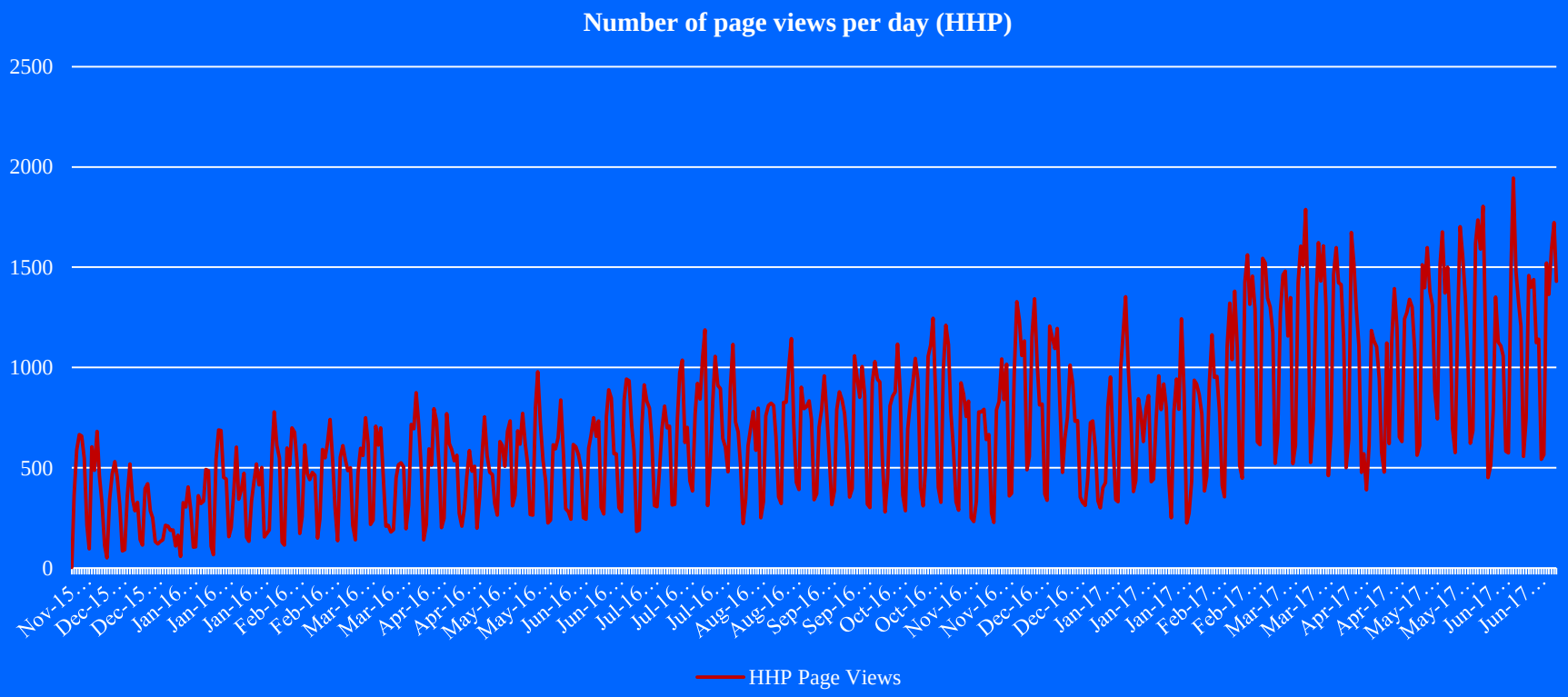
2. Ensure ABCs are maintained.
3. Ensure adequate analgesia.
4. If the patient has been intubated for airway protection, request ICU admission.
5. If for neurosurgical intervention, arrange acute neurosurgical admission.
6. Otherwise, request acute general medicine admission.
7. Longer term management of anticoagulation:
   - Requires an individual assessment of the risks and benefits of restarting warfarin or not.
   - Most should not restart warfarin. However, it is dependent on indications for anticoagulation, location and severity of bleed, comorbidities, age, and concurrent medications.

Request

- To request Prothrombinex and FFP, contact the Blood Bank.

CANTERBURY Hospital HealthPathways

Utilization



CANTERBURY Hospital HealthPathways

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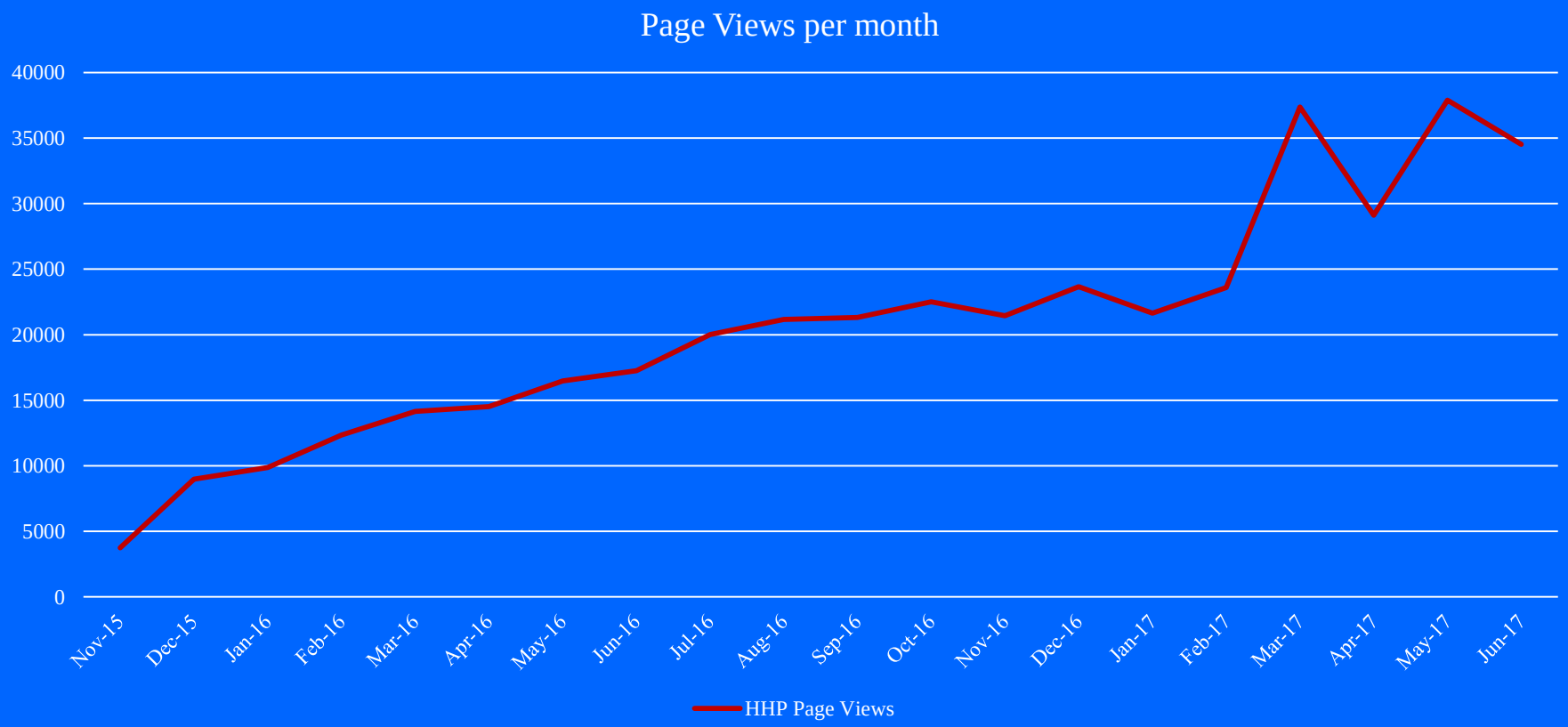


CANTERBURY Hospital HealthPathways

Evaluation

MMedSc postgraduate student half way through her year

- Question; What are the **features** of clinical guidance tools that contribute to their **success**?
- Mostly studying Community acquired pneumonia pathway
  - Utilization
  - Compliance
- Also, having a comparative look at pancreatitis and intracranial haemorrhage on warfarin pathways

CANTERBURY Hospital HealthPathways

Strengths

Promotes

- Clinical agreement
- Service development
- Improved patient flow
- Improved/earlier discharge planning
- Regional and national collaboration

Reduces

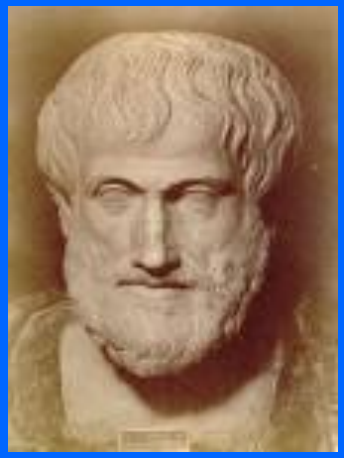
- Variation
- Adverse events
- Delays
- Conflict

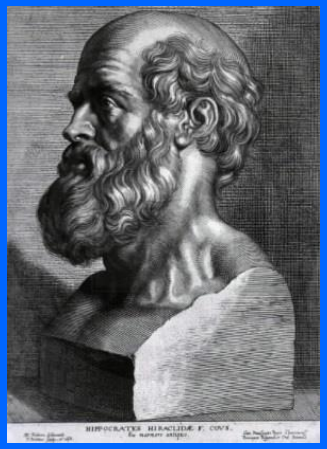
And it is

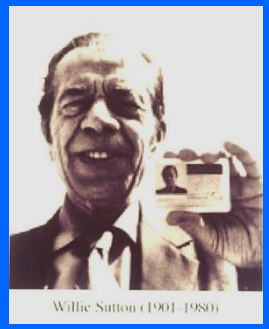
- Easy to update or change
- A single source of guidance
- In a common format

And, it helps us toggle to type 2

It is a way of asking Annie






Willie Sutton (1901–1980)

Medicine is an imprecise science

- Conceding and sharing the imprecision is important;

Debiasing Strategies

- Know about DPT and where errors are
- Understand the general nature of the biases
- Learn specific strategies debiasing
  - Toggle into type 2 thinking
  - Forcing functions

Using HealthPathways

- What is HealthPathways?
- How to use HealthPathways
- How to send feedback on a pathway
- Install shortcuts to HealthPathways
- Watch an Introduction to Hospital HealthPathways (7:39)

Community HealthPathways | HealthInfo | RMO Handbook

The Pink Book | NZ Formulary for Adults | NZ Formulary for Children

Health System News

28 Sep — BCG vaccination still unavailable for the under-fives

The BCG vaccine continues to be unavailable in New Zealand. The BCG vaccination clinic for those aged younger than 5 years is not accepting new referrals, and parents of children on the current waiting list are being advised. See Public Health Updates.

26 Sep — Physiotherapy services in Hokitika

Due to a severe shortage of physiotherapists, there will be no DHB-provided physiotherapy services in Hokitika until further notice. Canterbury DHB staff planning on discharging patients to Hokitika need to consider alternative physiotherapy service options. Read more...

22 Sep — Hernias and pilonidal disease – update on General Surgery capacity

General Surgery currently has capacity to see patients with hernias and pilonidal disease for surgical treatment. These patients can be seen now and triaged for surgery. Also refer those who may previously have been declined, or with a recent diagnosis.

20 Sep — NZEWS

The New Zealand Early Warning Score (NZEWS) has replaced the Canterbury DHB's EWS. Read more...

ABCs pathway

A new pathway covering the assessment and management of a very unwell or deteriorating patient is now available. Based on a step-by-step approach, the ABCs pathway provides details on how to get help, and basic airway interventions.

New and Updated Pathways

19 Sep	NZ Early Warning Score	NEW
19 Sep	ABCs	NEW
11 Sep	Hauora Māori (Māori Health) Competency	NEW
08 Sep	Accident Compensation Corporation	NEW
04 Sep	Multi-drug Resistant Organisms (MDRO)	NEW
01 Sep	Smoking Cessation Advice	UPDATED
31 Aug	Inpatient Bowel Preparation	NEW
25 Aug	Fluid Management in Adults	UPDATED

View more changes

Discussion