Medications

- Aspirin 100mg daily
- Clopidogrel 75mg daily
- Atorvastatin 80mg nocte
- Diltiazem CD 240mg daily
- Frusemide 80mg BD
- Isosorbide mononitrate 60 daily
- Prazosin 2.5mg BD
- Buprenophine patch
- Oxazepam at night

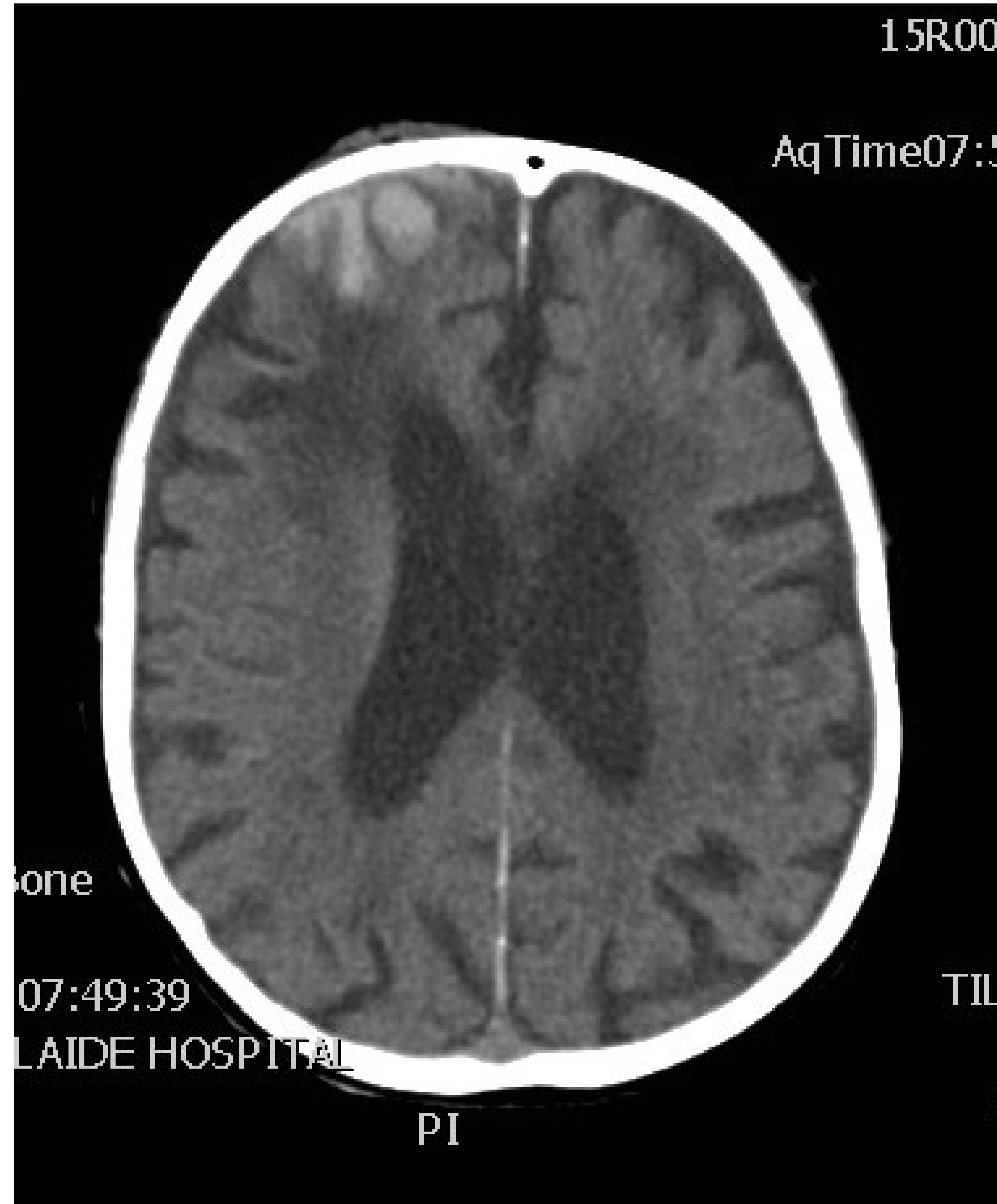
Risedronate 35mg weekly

Calcium/VitD 600mg/1000U

Allopurinol 100mg daily

Laxatives daily

Omeprazole 20mg daily


15R00
AqTime07:5
07:49:39
LAIDE HOSPITAL
TIL
PI

Guides for stopping:

- STOPP/START
- Beers criteria
- PIM
- Drug Burden Index

Medications

- Aspirin 100mg daily
- Clopidogrel 75mg daily
- Atorvastatin 80mg nocte
- Diltiazem CD 240mg daily
- Frusemide 80mg BD
- Isosorbide mononitrate 60 daily
- **Prazosin 2.5mg BD**
- Buprenophine patch
- **Oxazepam** at night

Risedronate 35mg weekly

Calcium/VitD 600mg/1000U

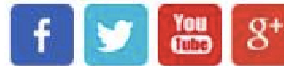
Allopurinol 100mg daily

Laxatives daily

Omeprazole 20mg daily

American Heart Association. life is why

LOCAL INFO | LANGUAGES | CAREERS | VOLUNTEER | DONATE



Search

GETTING HEALTHY | CONDITIONS | HEALTHCARE / RESEARCH | CAREGIVER | EDUCATOR | CPR & ECC | SHOP | CAUSES | ADVOCATE | GIVING | NEWS

Learning Library and Research | Scientific Sessions, Prof Ed & Meetings | Professional Membership | Statements / Guidelines | Focus on Quality | Hospital Accreditation & Certification | Get With The Guidelines | Mission: Lifeline | The Guideline Advantage

Focus on Quality

THE MORE HEALTHCARE QUALITY IMPROVES, THE MORE PATIENT OUTCOMES DO TOO

See how Target: Stroke is making a difference

When medical professionals apply the most up-to-date evidence-based treatment guidelines, **patient outcomes improve.**

U.S. Medicare Statistics

- 20% of Medicare Beneficiaries have 5 or more chronic conditions
- Of these patients, 50% are on 5 or more medications

Tinetti ME et al. N Engl J Med. 2004;351(27):2870

5

Gnjidic D, Hilmer S, et al. Polypharmacy cutoff and outcomes: five or more medicine were used to identify community-dwelling older men at risk of different adverse outcomes. J Clin Epidemiol 2012; 65:989-95.

Benefits of polypharmacy:

- BB in CCF or ischemic heart dz
- ACE or ARB in CCF
- Spironolactone in systolic heart failure
- digoxin
- BP treatment

- but in the frail 87yo is the evidence strong?

ACE-Inhibitors and ARBs

- Wide range of indications:
  - Hypertension
  - Secondary Prevention of stroke
  - Reduction of CVD risk
  - Prevention of progression of renal disease (CKD, Diab. Nephropathy)
  - Systolic heart failure

- Most trials excluded frail patients
  - No chance to reach trial endpoints
- Practically, often lower dosages are used
  - (? Due to fear of adverse effects?)

Trial outcome

Effect of beta blockers on all cause mortality in heart failure[5,10-12]

Trial	Drug	Treatment effect* (95% CI)
SENIORS	Nebivolol	0.88 (0.71 to 1.08)†
COPERNICUS	Carvedilol	0.65 (0.52 to 0.81)
CIBIS-II	Bisoprolol	0.66 (0.54 to 0.81)
MERIT-HF	Metoprolol-CR	0.66 (0.53 to 0.81)

* Hazard ratios with 95% confidence intervals, except for MERIT-HF, reported as a relative risk
† Not significant

NPS-Radar March 2010

Trial comparison

Patient characteristics in major trials of beta blockers in heart failure[5,10-12]

Drug and trial	Age mean (years)	Female (%)	LVEF mean (%)
Nebivolol SENIORS n = 2128	76	38	36
Carvedilol COPERNICUS n = 2289	63	21	20
Bisoprolol CIBIS-II n = 2647	61	19	28
Metoprolol-CR MERIT-HF n = 3991	64	23	28

NPS-Radar March 2010

Potential perils of polypharmacy in the Elderly: consistent associations

- Falls
- Cognitive decline
- Adverse drug reactions
- Frailty
- Death

Effects of polypharmacy in the Elderly

- It’s not simply the risks of polypharmacy
- Dwindling benefits of medications for single organ problems
- Diminishing chances of the patient realizing any improvement in life

- Two groups of mice: young and old, four week intervention, with controls.

- Given five commonly prescribed meds: simvastatin, metoprolol, omeprazole, paracetamol, citalopram

- Old mice: polypharmacy caused significant decrease in locomotor activity; loss of improvement in rotarod latency; and front paw wire holding impulse, lowered blood pressure.

- Huizer-Pajkos A, et al. Adverse geriatric outcomes secondary to polypharmacy in a mouse model: the influence of aging. J Gerontol A biol Sci Med Sci. 2015 May 4.

South Australia: older (>75yo) patients going to RCF

- Patients discharged from hospital to RCF have 25-70% one year mortality
- Patients discharged from GEM to home have 20% one year mortality

Not every 34 year old is the same

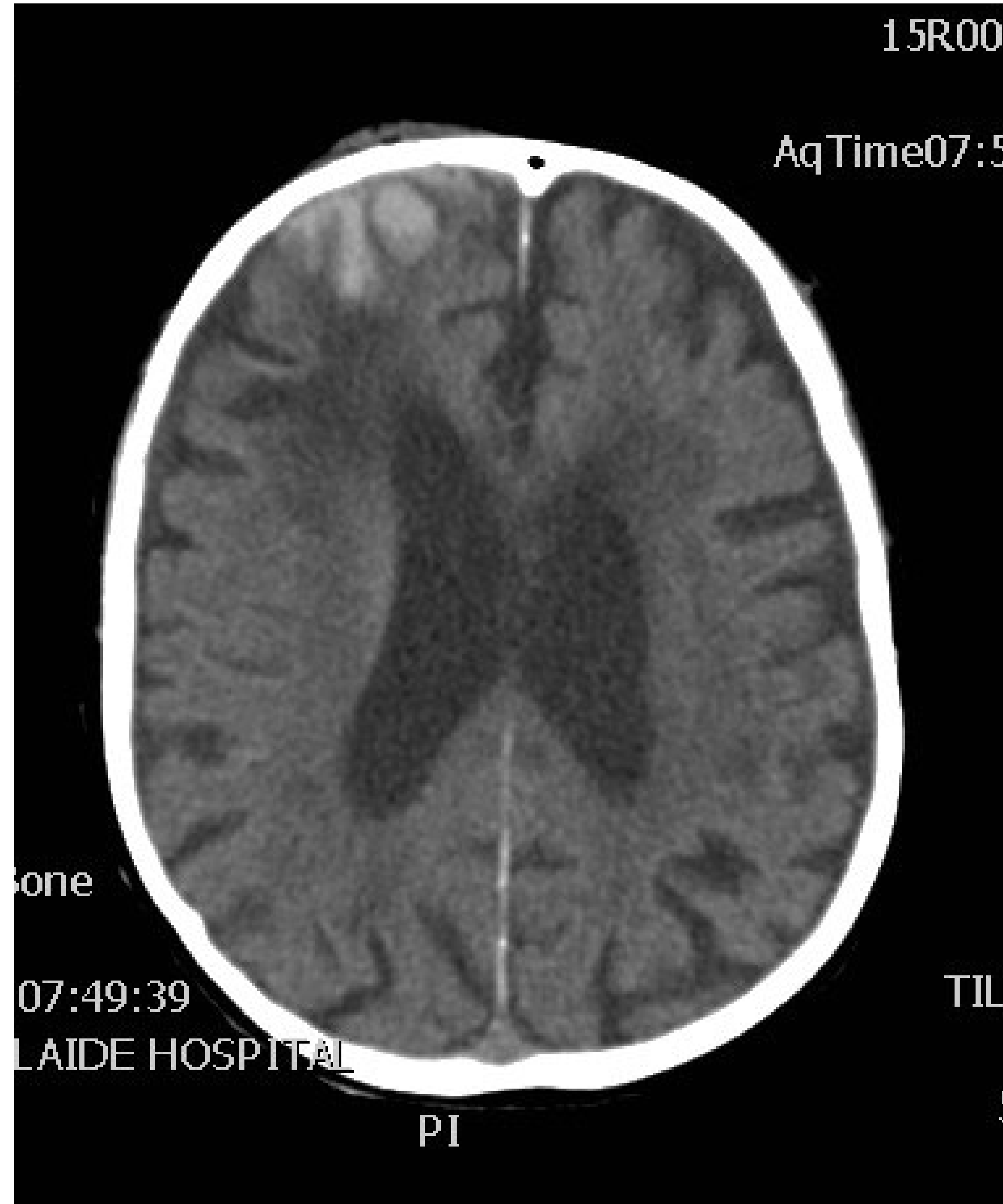
THE NEW YORK TIMES BESTSELLER

LINUS PAULING

AUTHOR OF VITAMIN C AND THE COMMON COLD

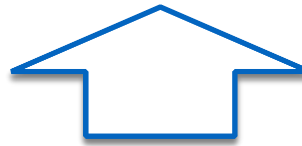
HOW TO LIVE LONGER AND FEEL BETTER

Identifying the tipping point



15R00
AqTime07:5
one
07:49:39
LAIDE HOSPITAL
TIL
PI

Prognostic tool applied at the tipping point or when circumstances change



The role for a RCT: “..a valid determination of a treatment’s efficacy and safety.”

- Polypharmacy = harm?
- Deprescribing = benefit?

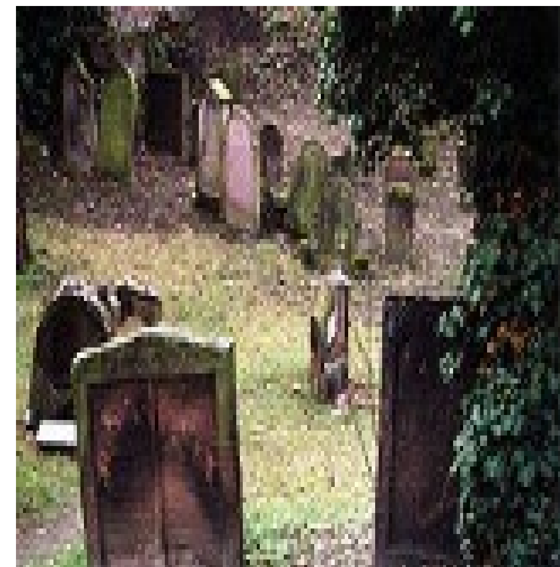
Any prospective deprescribing studies so far?

- Garfinkel 2007
- Non-randomised, 120 intervention, 70 controls
- 12 month follow up
- Avg 3 drugs stopped per patient
- 1yr mortality: 45% in control group; 21% in study group
- Referral to hospital: 30% in control, 12% study

Garfinkel D et al. IMAJ 2007; 9: 430-34

what did those patients look like?

- age: 82 +/- 8yr
- 95% demented
- MMSE=14
- double incontinence >90%
- 10% with CCF



which medications were ceased?

nitrates
H2 blockers

- antiHTN
- diuretics
- iron
- sedatives
- antidepressants
- antipsychotics

barriers to deprescribing:

- Doctors: busy (time); lack of demonstrated safety; lack of guidelines

- Patients: attachment to medicine regime

- Staff: antipsychotics and dementia

Australian efforts

- Australian Deprescribing Network (ADeN)
- OptiMED, Perth
- South Australian Deprescribing Initiative

South Australian Deprescribing Initiative (SADI)

- In-hospital enrollment

  Multi-Domain

  - Patient-centred
  - Expert opinion
  - Gen.Pract. Involvement
  - Community pharmacy involvement

Outcomes

- o Mortality
- o Readmission
- o Patient qual.of life measures

reflection on the opening story, preventable death

- is allowing a person to die from the natural progression of a disease the same as slowly poisoning them with medications to prevent death?

Ways to improve our practice of medicine

- Deliberate practice each day
- Feedback (360)
- Clinical research

Data collection in the trenches

- Consultant physician: while listening to presentation by house officer, entering basic data
- Using checklists, data entry can be a standard part of every admission.
- Each patient admitted to hospital is entered into a study protocol.
- Potential for General Medicine patients, in city or regional Australia

REDCap™
Research Electronic Data Capture

www.projectredcap.org

Chrome File Edit View History Bookmarks People Window Help 66% Mon 3:18 pm

Russell, Patrick (Health) | REDCap | New Tab

projectredcap.org

Apps | ANZ Internet Banking | Fast Field | iCloud | Google | email, work | LinkedIn | Smartsheet.com | ePrognosis - Inouye | Dad's online banking | SEAFORD train | Imported From Safari

REDCap: research data collection application

- Free
- Web-based
- Secure (HIPPA compliant)
- Dashboard/instruments can be constructed without experience
- Versatile
- Control: administrator can tailor which user has access to which tool

- **Availability** - Software is available at no cost for REDCap Consortium Partners.
- **Secure and web-based** - Input data or build an online survey or database from anywhere in the world over a secure web connection with authentication and data logging.
- **Fast and flexible** - Conception to production-level database or survey in less than one day.
- **Multi-site access** - REDCap databases/surveys can be used by researchers from multiple sites and institutions.

- **Export data to common data analysis packages**- Exports raw data and syntax files for SAS, Stata, R, and SPSS.
- **Fully customizable** - You are in total control of shaping your database or survey

How to do this:

- Find someone with a license or approach REDCap directly
- Need a server (e.g. University of Adelaide)
- Sign up for a free trial

- Decide on a title of your project
- Development phase, testing, etc.
- Production mode

www.projectredcap.org

End

Thank you