

Proving that teaching has improved outcomes not for learners but for organisations and their clients as end users

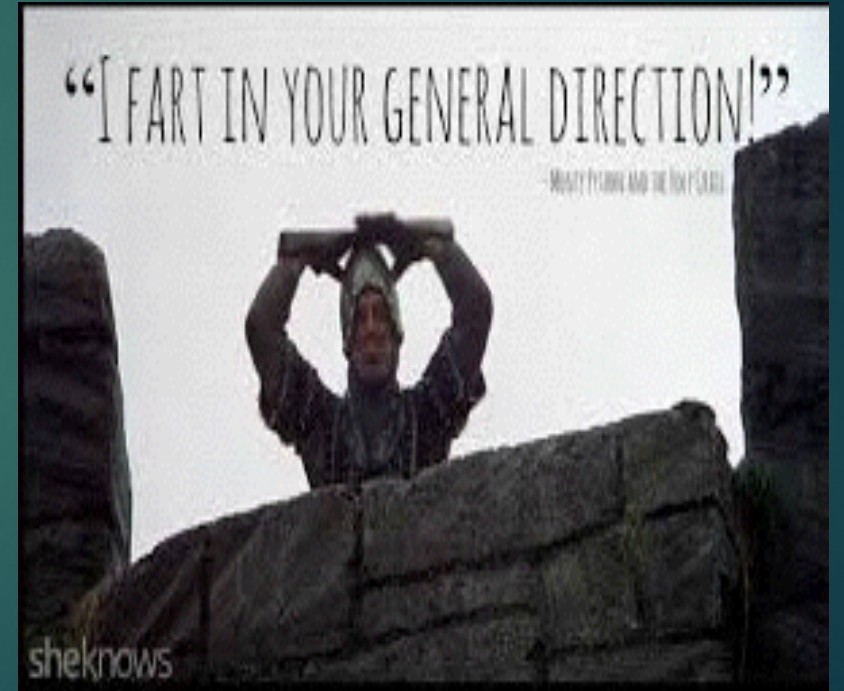
DALE SHEEHAN - UNITEC



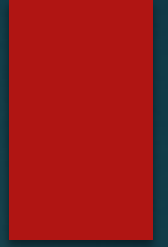


Kirkpatrick Level 4

- ▶ “The extent that targeted outcomes (for the business) occur as a result of training and subsequent reinforcement”
- ▶ So graduates outputs at work as a result of training not their learning or their capability



Today



- ▶ Share a programme designed to change practice
- ▶ Share how we defined success and therefore evaluated the programme
- ▶ Discuss the issues that are arising and feasibility for your contexts

Medicine and pharmacy working together – teaching together



DALE SHEEHAN - CDHB/UNITEC

AVRIL LEE – PHARMACY WDHB - MARY YOUNG CDHB (AND THEIR AUDITORS)

DR JOHN THWAITES – CDHB, IAN WALLACE – WDHB (AND THE WARD CONSULTANTS)

Errors by Juniors – An international Issue

- ▶ Medication errors and adverse drug events affect an unacceptable number of New Zealanders each year, sometimes with resultant permanent disability or death (Briant, Ali-Yee & Davis 2004).
- ▶ EQUIP study, conducted in 20 English hospitals, reported a prescription error rate of 8.9% for all medication orders (Dornan, Ashcroft, Heatherfield et al 2009)
- ▶ In New Zealand junior doctors consider prescribing to be the most difficult aspect of their job, and the one for which they feel the least prepared. (Lee, Sheehan & Alley 2013).



There is lots available on line !

Medication Safety Tips for Seniors

Medication Safety Tips

1. Make it easy to see the medication.
 - Place glasses
 - Use strong lighting
 - Use a magnifier
 - Ask for large print books
2. Create a routine for taking medicine at the same time as another daily event, such as meal time or bath time.
3. Create a way to remember when doses of medicine have been taken. Ideas include:
 - Pill containers with slots for four doses per day
 - Pill boxes which beep a sound at medication time
 - Write down (on a small calendar) and make a check mark after each dose is taken.

Questions to Ask Your Doctor About New Medications

What is the name of the medication?
What am I going to take?
Are there any side effects?
How long do I take the medication?

Questions to Ask Your Pharmacist About New Medications

Is the medicine taken with food or on an empty stomach?
Should certain foods, drinks or other drugs be avoided?
Is an over-the-counter drug available?
Is a large print label available?

Patient Information Center - Tampa
1-800-235-1333
www.patientcenteratampa.org



Pt Safety

- Never leave the medication room with a syringe unless it has a label on it that includes the patient's name, dose, and name of medication.



Remember to wear the Learning to Learning logo!



The IP intervention

Education to improve practice and patient care

- ▶ We focused on reducing prescribing errors so we measured prescribing errors
- ▶ A PREVIOUS STUDY SHOWED NO LINK BETWEEN KNOWLEDGE AND PRESCRIBING

A number variables BUT

The biggest impact in our teaching appears to be from:

- ▶ The utilisation of either the ward pharmacist as clinical collaborator or coach working with the junior doctor on the ward
- ▶ Making the most of the collaborative opportunities on the ward



Collaboration occurred in practice

- ▶ Going beyond understanding of each others role – taking it to the next level and exchanging knowledge and point of view
- ▶ Modelling of collaborative communication between Consultants and Pharmacists at teaching
- ▶ JUST knowing each other better – Relationships between disciplines built over a year



No quick win, no one approach

The concept of aggregation of marginal gains

“the 1% margin for improvement in everything you do”



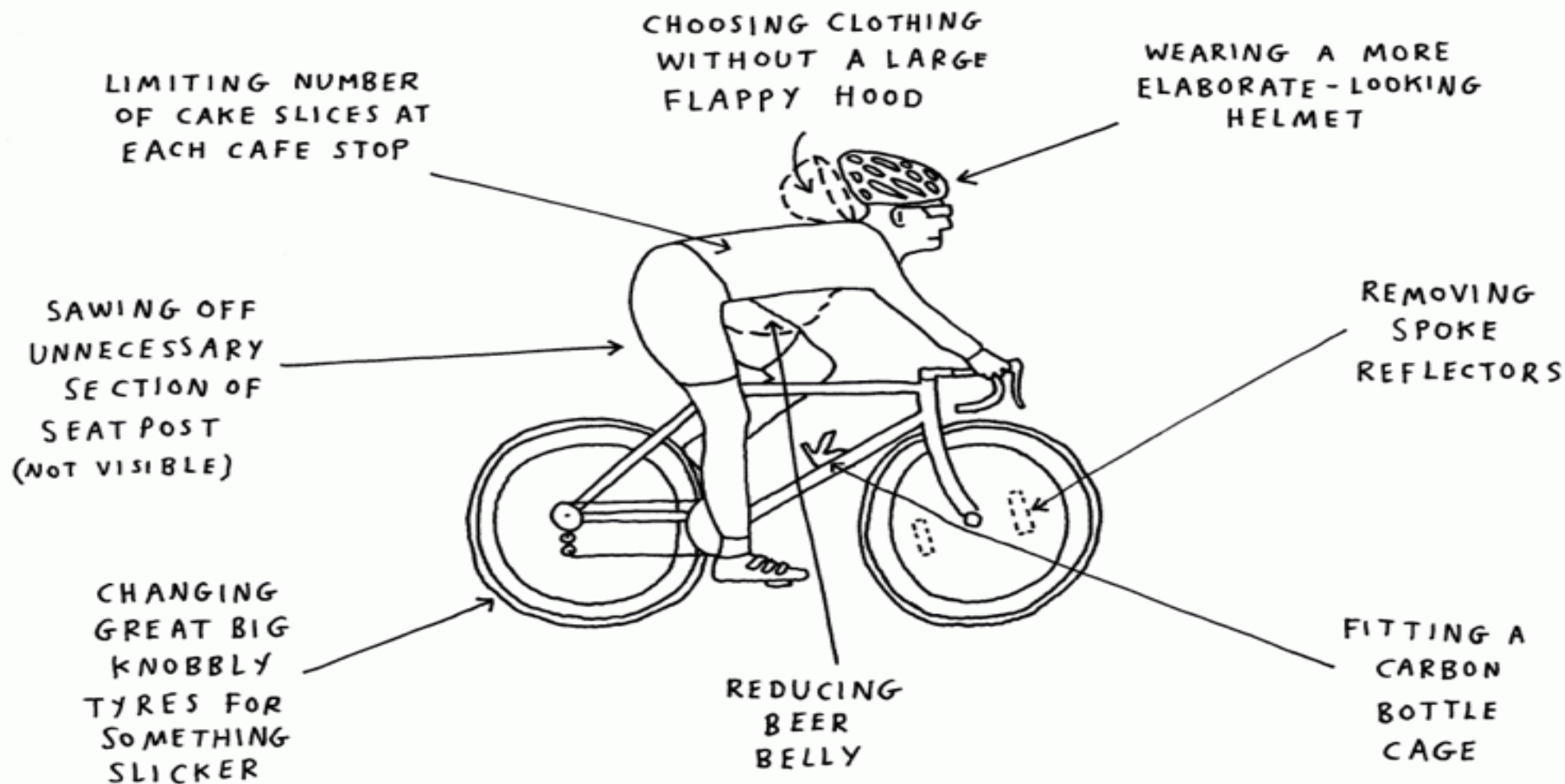
Did we have an impact?



- ▶ There was a **40% improvement** in prescribing practice across the year
- ▶ Knowledge increased between 9-12% across sites

MARGINAL GAINS

HOW THE PROFESSIONALS MAKE SMALL CHANGES TO IMPROVE THEIR PERFORMANCE



The Audit – In the first study

Audit outcomes

- 222 drug charts sampled, 118 contained one or more opioids
- Sample
 - 40 charts Audit 1 (52 prescribed opioids)
 - 28 charts Audit 2 (30 prescribed opioids)

Opioid	Number of prescriptions Initial	Number of prescriptions Follow up
Oral Morphine	30 (57.7%)	22 (73.3%)
IV Morphine	17 (32.7%)	5 (16.6%)
Oral Oxycodone	4 (7.7%)	1 (3.3%)
IV Fentanyl	1 (1.9%)	2 (6.7%)
Total # opioid	52	30

Audit outcomes

- Severity of prescribing error was based on the current guidelines for opioid prescribing.
- 13 potentially harmful prescriptions
- 2 potentially lethal doses.
 - The potentially lethal doses were 10x the recommended dose.

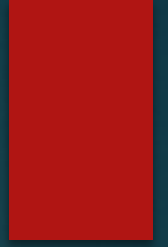
	Unlikely to Harm	Potentially harmful	Potentially Lethal
Oral Morphine	5	6	0
IV Morphine	8	3	2
Oxycodone	0	4	0
Fentanyl	0	0	0
Total	13	13	2

What next

- Replicating epiphany programme a UK intervention and study
- 2 sites bigger enhanced intervention
- Audit for 6 months - lots work all clinicians on a ward – needs a dedicated pharmacist for 2 hours a day - Pfizer paying
- First 3 months is the base line
- **Then we teach, coach in practice and support and audit over three months see what impact we make**



Is it worth is - Costing Pfizer \$30,000



- ▶ Costing Pfizer \$30,000
- ▶ Are we dancing with the devil (a pharmacy company)
- ▶ Are we setting a precedent
- ▶ How often would you do something like this – we will spend more time auditing than teaching

Potential Impact on medication safety

- ▶ Reduce errors by 53%
- ▶ Reduce severity errors by 50%
- ▶ That means reduce stay in hospital by 489 days
- ▶ In Britain that was GPD 320,000
- ▶ And at a case level someone may not lose their life to a medication error

Scott – Graduate outcomes

- ▶ Goes one further
- ▶ Not what can graduates do
- ▶ But how do they contribute to the organisations outcomes and strategic goals
- ▶ Its longitudinal follow up on arduate capability – feasible???



Ideas, thoughts comments

WHAT IS THE VIABILITY OF MEASURING IMPACT OF TEACHING ON THE WORKPLACE?

IMPLICATIONS FOR THE EDUCATION ORGANISATIONS AND THEIR PARTNERSHIPS WITH INDUSTRY?

Audit outcomes

- Errors identified
 - Incorrect dose, Frequency, Maximum dose guideline
 - Illegible name or prescribed medication
- Significant decrease in Prescription errors (54% to 7%)

Opioid	Number of dose Errors Initial audit	Number of dose Errors Follow up
Oral Morphine	11(36.7%)	1(4.7%)
IV Morphine	13(76.5%)	1(20%)
Oral Oxycodone	4(100%)	0
IV Fentanyl	0	0
Total dose errors	28(53.8%)	2(6.7%)