

# Practical Medicines Management

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Pharmac Seminar Series

Medicines in Healthcare

August 2015

***“Even people who have access to drugs may not receive the right medicine in the right dosage when they need it. Many people buy, or are prescribed and dispensed drugs that are not appropriate for their needs. Some use several drugs when one would do. Others use drugs that carry unnecessary risks. The irrational use of drugs may unnecessarily prolong or even cause ill-health and suffering, and results in a waste of limited resources” Reference WHO***

# This session

- Process components of medicines management and optimisation not covered in other sessions;
  - Medicines reconciliation & history
  - Adherence
  - Detecting & reporting ADRs/ADEs
  - Practical implementation considerations
- NICE Medicines Optimisation Guidelines  
March 2015

# Medicines Reconciliation

- Globally recognised tool/process for medicines optimisation
- Usual context is on admission to hospital ...  
*...BUT...*
- Potential value
  - highlighting ADEs or non-adherence
  - Identify changes/errors and additions
  - prevent inappropriate prescribing decisions

# Medicines Reconciliation

Surname:	NHI:	Allergies and ADRs: <input type="checkbox"/> NKDA <input type="checkbox"/> Y (Please fill in table below)		
First name:	DOB:	Drug	Response	Date Occured
Address:	Ward:			
GP:	Consultant:			



### Sources of information:

Primary	<input type="checkbox"/> Patient	<input type="checkbox"/> Family/Caregiver	<input type="checkbox"/> Patient medicine list	<input type="checkbox"/> Patient's own medicines
Secondary	<input type="checkbox"/> GP (verbal or letter)	<input type="checkbox"/> Pharmacy (Name)	<input type="checkbox"/> Other health professionals	<input type="checkbox"/> Rest Home
Tertiary	<input type="checkbox"/> Clinical notes	<input type="checkbox"/> Medication charts	<input type="checkbox"/> Transfer letter	<input type="checkbox"/> Previous MR

Date and Time Admitted:	Key worker:	Smoker: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Medicine (including regular, PRN, herbal, vitamins)	Dose	Route	Frequency	Discrepancy Yes/No	Intentional Yes/No	Comments/Reason for Change	Continue on discharge Yes/No	Discharge notes
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								

I have reviewed and reconciled patient's medications	Prescriber Signature:	Date and Time:
History taken by: (Name, designation, pager)	Signature:	Date and Time:
Comments		

**MEDICINES RECONCILIATION FORM**

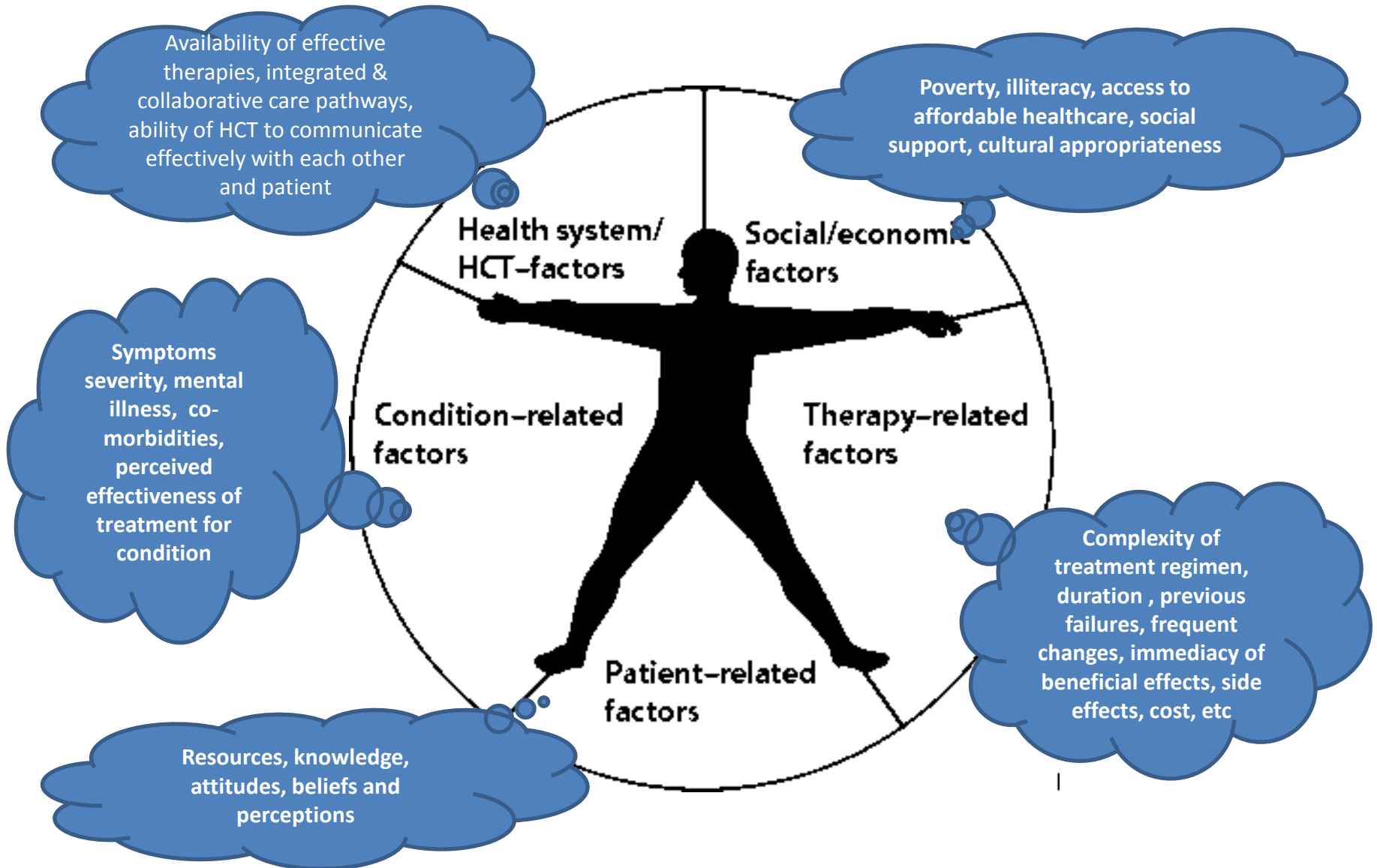
# Implications in practice;

- PMS medication lists
  - Referrals
  - Alerts for safety monitoring/TDM
- (Re)prescribing post discharge
- Non-prescribed/CAMs/Supplements
- ePrescription service
- (Cases)

# Adherence

- Terminology
- **Adherence** describes the degree to which behaviour aligns with agreed recommendations from a health care provider (WHO 2003)
- Magnitude of poor adherence to treatment of chronic conditions in developed countries is striking averaging approx 50%
- The impact of poor adherence grows as the burden of chronic disease grows
- Consequences are poor health outcomes and increased health-care costs

# Dimensions Affecting Adherence



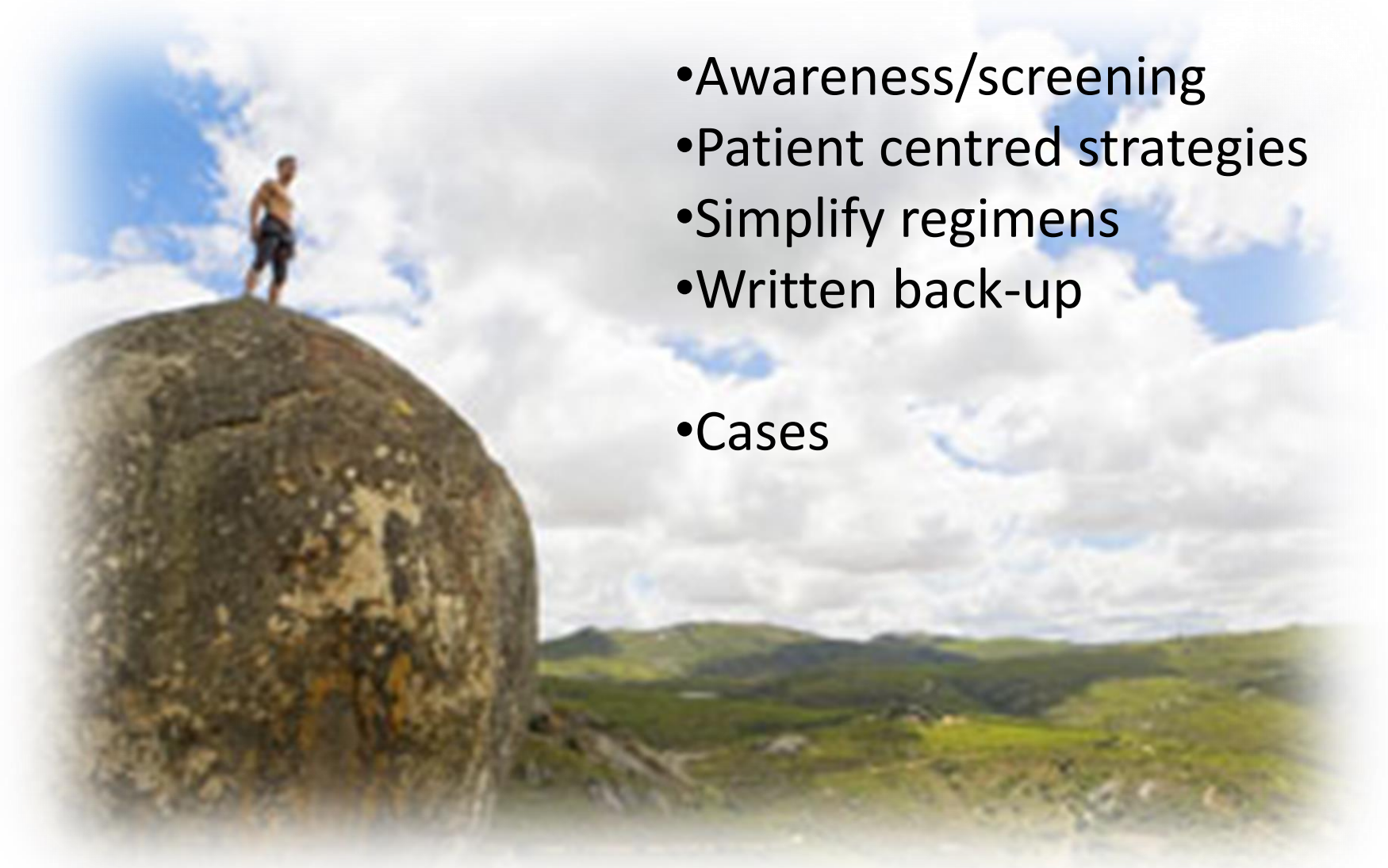


# Adherence Interventions

- *"Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments"*  
**(Haynes RB, CDSR 2001)**
- Cochrane Review Updated Nov 2014
- "Emerging" technology solutions

# Adherence – How can we help?

- Awareness/screening
- Patient centred strategies
- Simplify regimens
- Written back-up
  
- Cases



# Example Adherence Questions

- Are you still taking this medicine?
- Can you show me your daily medication routine/system? (NB inhalers)
- Do you have any concerns or problems that you think may be caused by your medication?
- We know many people forget to take medicines from time to time; overall how often does this happen to you?
- Do you ever take your medication differently to how it is prescribed?
- What do you do if you miss doses of your medicines?
- Can you tell me why you are on this medicine and how do you think it is working for you?
- Do you have any problems taking or using your medicines?
- What do you take for a headache? Or aches and pains?
- If you get indigestion, heart burn, constipation etc. what do you take for it?
- Do you take any non-prescribed medicines, vitamins, supplements, herbal products, things you buy from the health food shop or supermarket?

# Medicines Record Cards

## Questions you may want to ask your Pharmacist or Doctor:

- What is my health problem?
- How long do I need to take my medicines?
- What could happen if I stop taking my medicines?
- What are the side effects? What should do if I get them?

## If you have any further questions:

- Speak to your Pharmacist
- Make an appointment with your Doctor or Practice Nurse
- Contact the Pharmacist Facilitator for an appointment at the:  
Whanganui Regional Health Network on  
06 348 0109

## Instructions:

Carry this card at ALL times when you:

- Visit your doctor/GP
- Visit your pharmacy
- Are admitted to emergency department/hospital
- Visit your dentist or any other specialist e.g. anaesthetist

Ask your **Doctor or Pharmacist to update this card** when your medicines are changed. Make sure you have **adequate supply** of medicines. Contact your GP/Practice Nurse or Pharmacist before your medicines run out.

Keep **ALL** your medicines in a cool, dry, safe place **AWAY** from children

Please return ALL unwanted medicines to your community pharmacist

It is very important to let the doctor and pharmacist know if you are taking any **herbal supplements**



## MEDICINE RECORD CARD

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

DOB: \_\_\_\_\_ NHI: \_\_\_\_\_

GP & Contact number: \_\_\_\_\_

Allergies/Sensitivities: \_\_\_\_\_

Patient Name					21-Jan-15	
NHI						
MEDICINE	BREAKFAST	LUNCH	DINNER	BEDTIME	ADVICE	USE
Lantus insulin				30units	Use via subcutaneous injection	For diabetes. Long acting insulin
Novorapid insulin	6units	6units	10units		Use via subcutaneous injection	For diabetes. Short acting insulin
Warfarin/Coumadin 2mg & 1mg tablets	Take dose according to INR monitoring (currently 2mg daily)					To help prevent blood clots
Losartan 50mg hydrochlorthiazide 12.5mg (Hyzaar/Arrow)	1					For heart/blood pressure
Diltiazem CD 240mg (Cardizem CD)	1				Swallow whole with a glass of water. Avoid grapefruit and its juice.	For heart/blood pressure
Atorvastatin 40mg (Zarator)			1		Avoid grapefruit and its juice.	To lower cholesterol
Pantoprazole 20mg (Dr Reddy's)			1		Swallow whole	To reduce stomach acid

# Practical management - ADEs



- Adverse event vs Adverse Drug Reaction

# ADRs & AEs

- Adverse Drug Reaction – response which is noxious and unintended, occurs at doses normally used in man
- Adverse Events – any untoward medical occurrence that may present during treatment with a medicine, not necessarily caused by the medicine

# Practical management - ADRs



- Adverse drug events (ADEs)
  - Adverse drug reaction
  - Not receiving medicine
  - Medication error
  - Consequence e.g. falls
  - Lack of monitoring
- Adverse drug reactions (ADRs)
  - Due to the drug properties specifically
  - Allergies are a specific sub-group of ADRs

# Pharmacovigilance in NZ



- Medsafe → CARM → MARC
- NZ Pharmacovigilance Centre (UoO)
  - CARM - ADRs
  - MERP – AEs
  - Psychoactive substances monitoring
  - (IMMP) – closed Dec 2013
  - Paediatric system (Des Kunac)
- Medicines Adverse Reactions Committee

*Please report your ADRs to CARM*



# Adverse drug reactions



- Type A (Augmented)
  - Predictable [pharmacokinetic / dynamic / genetic principles apply]
  - Dose dependent [relative]
  - > 70% of ADRs
- Type B (Bizarre)
  - Unpredictable
  - Idiosyncractic
  - Immunologic
  - Any dose

# Adverse drug effects - Process



- Is it really an adverse effect
  - Onset
  - Type A - Predictable (dose related / idiosyncratic) VS Type B - bizarre
- What to do
  - Stop or switch?
  - How fast?
    - Severity
- Confirm
  - Re-challenge

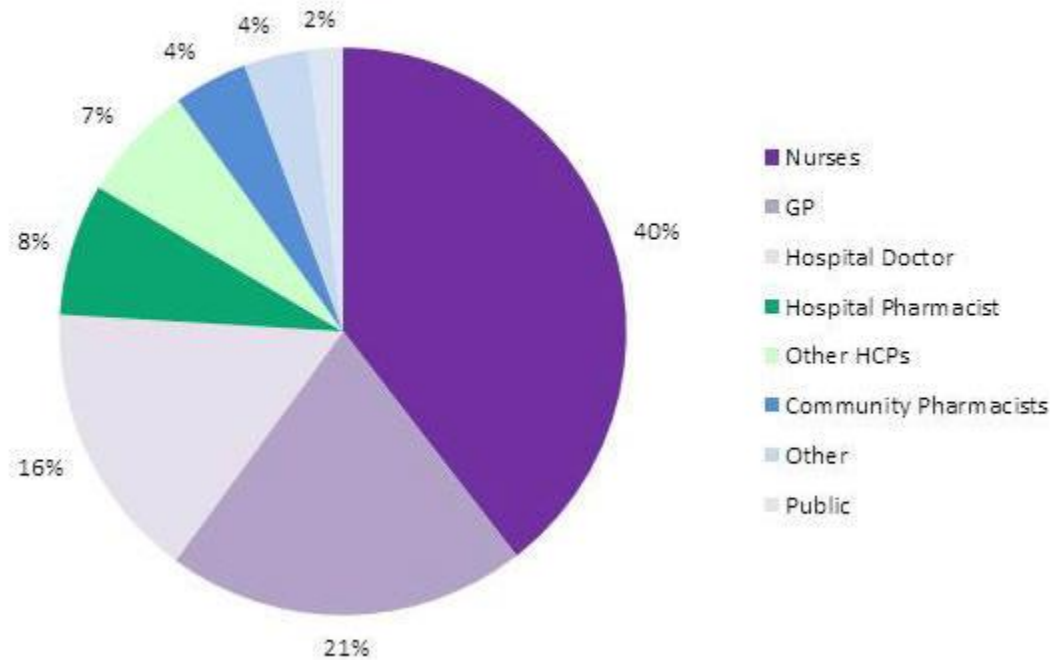
# Back to the case ... discussion



- Statins
  - muscle aches; memory loss
- Hyponatraemia
  - Omeprazole, chlorthalidone, cilazapril, citalopram
- Post MI (6 months) and hair loss
  - Atorvastatin, metoprolol, cilazapril

*Is it an ADR (or interaction), what to do, how to do it, monitoring, confirming*

# CARM Reports NZ 2014



# What to Report

- Any suspected ADRs to any medicine, vaccine, CAM, psychoactive substance
- “Serious suspected reactions & reactions of clinical concern” including those that are fatal, life-threatening, disabling, incapacitating, result in prolonged hospitalisation (even if well recognised)
- Newly introduced medicines and vaccines – spontaneous reporting of suspected reactions even if it is not certain the drug has caused it (valuable for recognising possible new hazards)
- Suspected drug interactions
- If in doubt, report!

# Medication Changes:

## Practical Implementation Considerations

- Prescribing Decisions/changes impact patients in many ways that can lead to ↓ adherence and outcome
- Consider
  - financial cost of changes
  - Literacy/ability to manage complex actions and consequences
  - Social factors
  - Clinical aspects – e.g. side effects from increased doses or loss of efficacy from reduced doses
- Cases & Solutions