







- 4.1 million People

Maori 14%

Pacific People 6%

Asian 6%

- 39.9 million sheep

A Universal List of Medicines for New Zealand

Why?
What?
How?

Paul Cressey Reg Pharm ONZM

Why? NZ Health System

- 20 District Health Boards
 - 20 Hospitals
 - 3,200 General Practitioners
 - 900 Community Pharmacies
- Government Funding \$12.6 billion
- 9.8% GDP
- Accident Compensation Commission _{est} \$3 b
- Private Medical Insurance \$0.8 b

Why? NZ Health Information

- Health Information Standards Organisation
- Health Information Strategy NZ
- Health Information Strategy Action Committee
 - ePharmacy
 - eLaboratory
 - eReferrals
 - eDischarge
 - Standards

Why? National Issues

- Meeting Pharmacists and General Practitioners
- 30% errors
- 10% errors
- Lists
- Universal List of Medicines

A	S	12/19	Paracetamol	1g	o	Q4h prn	Thurs
B	S		folic acid	5mg	o	od 0800	
C	S		prednisone	10 mg	o	od 0800	
D	2000 500		Azathioprine	100 mg	o	od 0800	
E	S		Trimethoprim	300 mg	h	night	
F	S	12/19	Ca Phosphok.	30mg	po	1000	PPH/1 Oct 1970
G	S	17/19	Cyclozine	50mg	h	1600	17/19 1600
H		21/19	Ceftriaxone	2g	IV	1600	
I		22/19	Amoxicillin	1500	h	1600	
J	S	23/19	Amphotericin B	25 mg	IV	daily	19
K	S	24/19	Cefazolin	1g	h	1600	Thurs
L	2000 500	24/19	Flucytosine	2.5 gm	po	qid	19
M		24/19	Nystatin	1ml	h	qid	19
N	S	24/19	Slow K	10	po	1600	19
O	S	24/19	Slow K	10	po	1600	19

Why? Safe Medication Management

- Davis Report 2001
- Quality Improvement Committee
- Sentinel and Serious Events
- Safe Medication Management Programme
 - Medicines Reconciliation
 - National Chart
 - Bedside Verification/Unit Dose
 - eMedicine Systems
- Institute for Healthcare Improvement

How? Australian Medicines Terminology

- National Pharmaceutical Index
- Australasian Medicines Terminology
- NeHTA
- Snomed
- Snomed Medicines Terminology
- HISO Terminology Standards



www.nzulm.org.nz



www.nzulm.org.nz

How? NZULM Organisation

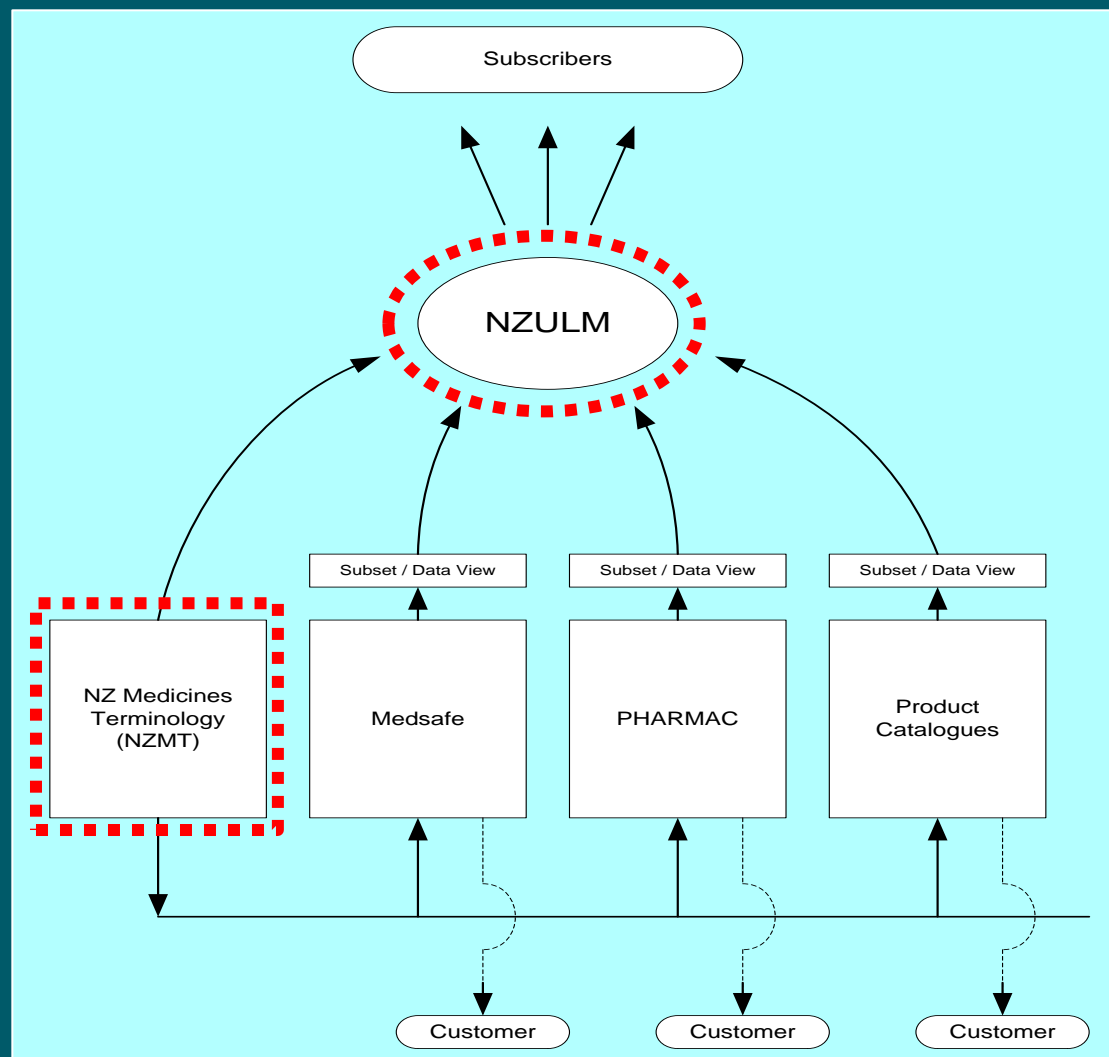


- Governance
 - SMM
 - Medsafe
 - Pharmac
 - MOH
- Management
 - Project Manager
 - Lead Pharmacists
 - System Analysts/Programmers
 - Review Pharmacists
- Clinical Advisory Board
- Clinical Editorial Committee

How? Budget Timetable

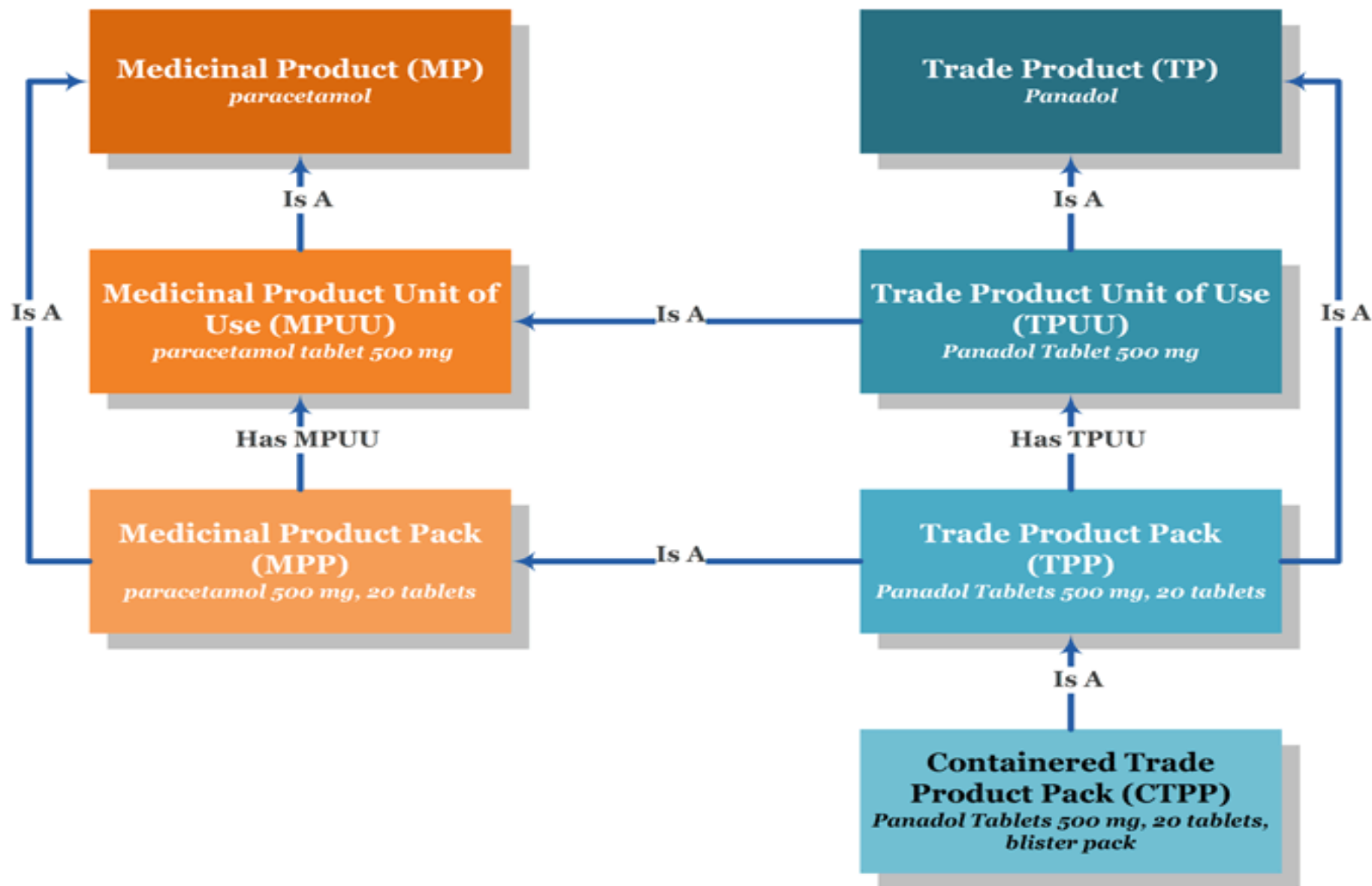
- Development Budget \$639,000
- Commencement Oct 2009
- Launch May 2010
- Integration Systems Dec 2010
 - GP Systems
 - Pharmacy System
 - Hospital System
- Fully operational Mar 2011
- Implementation Budget \$1,054 million

How? The NZ Universal List of Medicines



Contains basic facts about medicines (& devices) at the pack & individual dose level.

New Zealand Medicines Terminology data model



How? Listing a Product

1. Apply for a NZMT listing



New Zealand Medicines Terminology

Application for a New Zealand Medicines Terminology New Product listing or notification of a Change to an existing Product listing

To apply for a new or changed listing please answer the questions below, save the file and e-mail it to listings@nzulm.org.nz or print and fax to 04 567 8571

Sponsor details:
Sponsor company:
Sponsor address:

Product Composition:

Dose form 1	Active ingredient name	Strength
Active ingredient 1	<input type="text"/>	<input type="text"/>
Active ingredient 2	<input type="text"/>	<input type="text"/>
Active ingredient 3	<input type="text"/>	<input type="text"/>

Dose form 2:

Active ingredient name	Strength
Active ingredient 1	<input type="text"/>
Active ingredient 2	<input type="text"/>
Active ingredient 3	<input type="text"/>

Dose form 3:

Active ingredient name	Strength
<input type="text"/>	<input type="text"/>

Other contact details:

Sponsor company	Regulatory Affairs Manager
<input type="text"/>	<input type="text"/>
Phone:	<input type="text"/>
Fax:	<input type="text"/>
E-mail:	<input type="text"/>
Name:	<input type="text"/>
Mobile phone:	<input type="text"/>

Product details:
Product name:
Dosage form:
Pack size:
Container type:
GTIN number (if available):
Pharmaco code number (if available):

1. Apply for a NZMT listing

- Apply for a NZMT description and code for every new medicine
- Apply for a NZMT description and code for every changed medicine where there are changes to brand name, active ingredient, strength, form, pack size and container
- NZMT application forms are available from www.nzulm.org.nz. Once filled out, email the form to listings@nzulm.org.nz or print and fax to 04 5678571

2. Receive NZMT listing details



NZ Medicines Terminology Information

Medicine Name	SCDID
Medicinal Product (MP) codeine	1007090100001.10.100
Medicinal Product Unit of Use (MPU) codeine 120 mg tablet	10070902100001.10.107
Medicinal Product Pack (MPP) codeine 120 mg tablet, 10	10070904100001.10.101

Brand

Trade Product (TP) Arrow-Roxidolone <th>SCDID</th>	SCDID
Trade Prod Arrow-Rox	10070906100001.10.101
Trade Prod Arrow-Rox	
Container Arrow-Rox	

Arrow-Rox is
NOT a
distribution

2. Receive NZMT listing details

- NZMT listing details provided electronically within 1 -3 business days of receipt of an application. Urgent requests will be responded to in 1 business day

3. Apply to Medsafe for consent

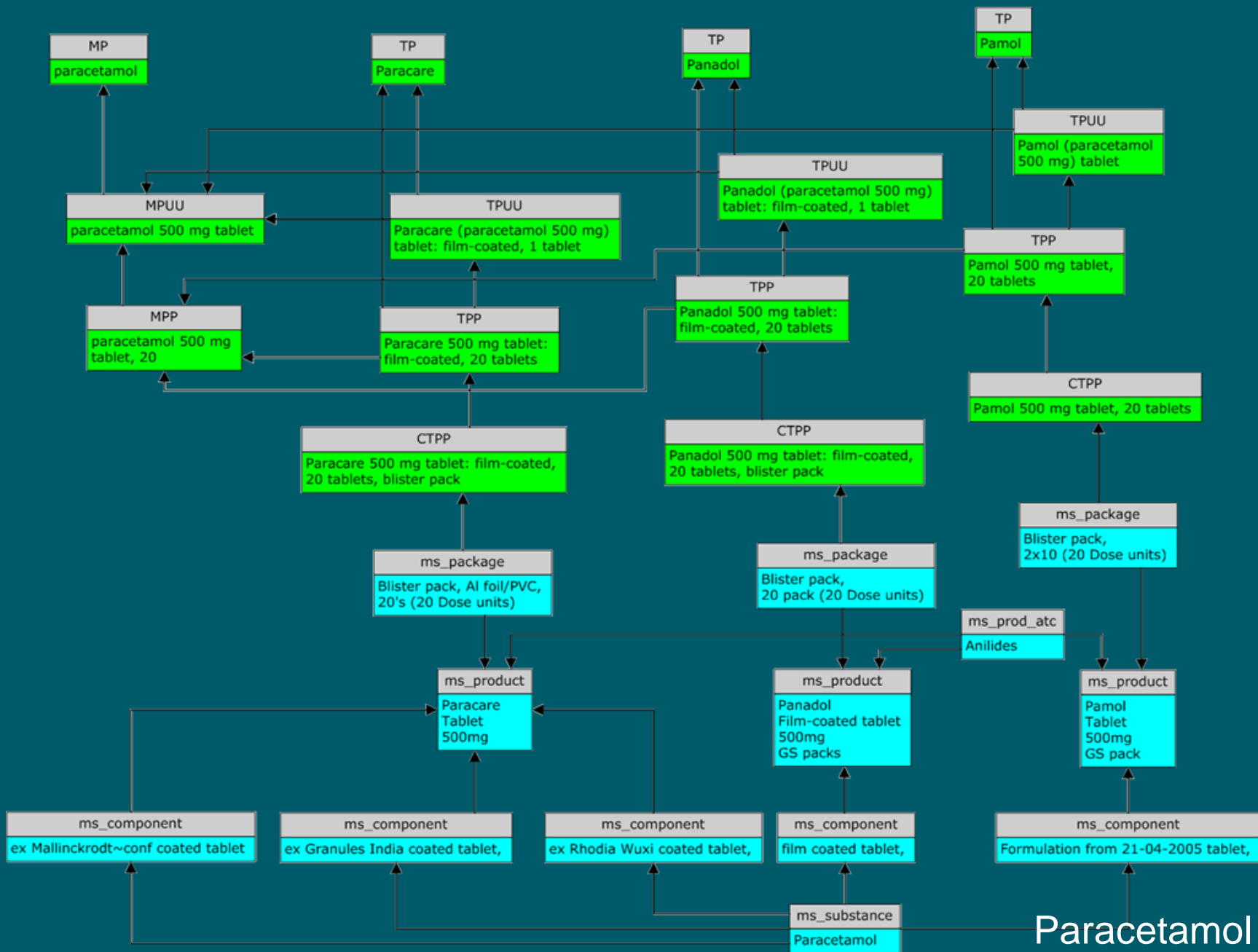


MEDSAFE
NEW ZEALAND MEDICINES
AND MEDICAL DEVICES
SAFETY AUTHORITY
A BUSINESS UNIT OF
THE MEDICAL DEVICES BOARD

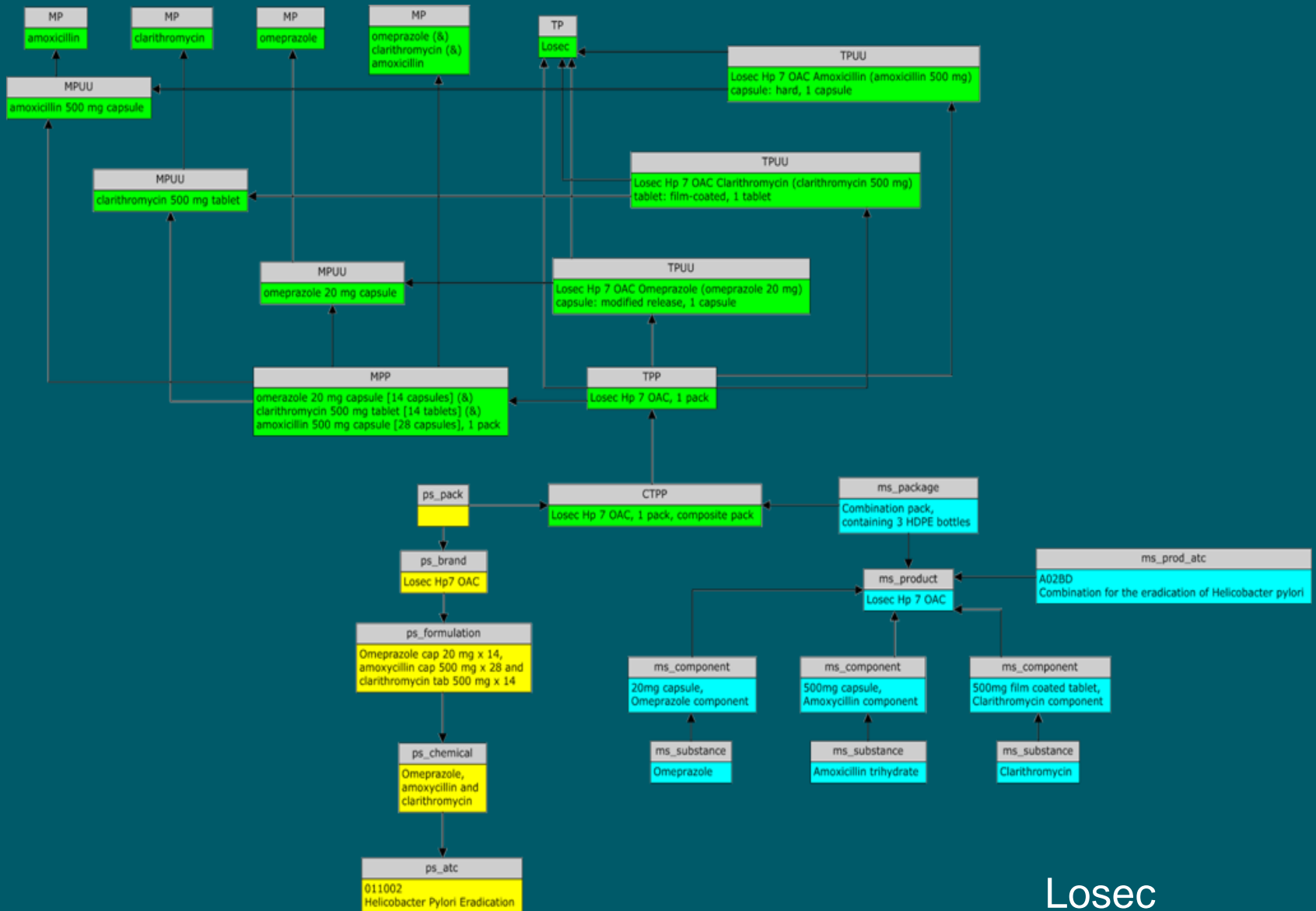
**New Zealand
Regulatory
Guidelines for
Medicines**

3. Apply to Medsafe for consent

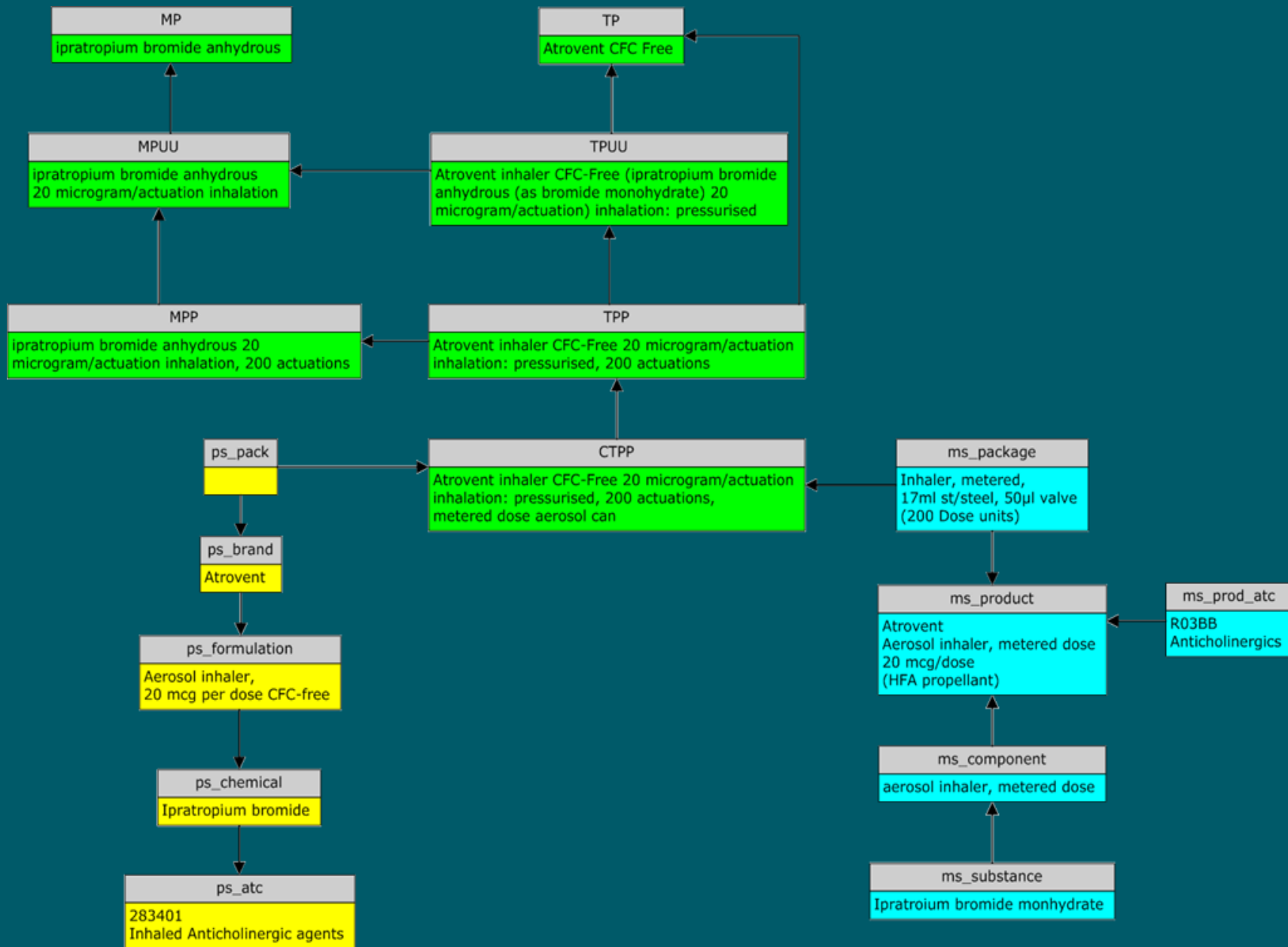
- You are now ready to apply to Medsafe for consent to distribute your medicine
- Please send the NZMT details with your application to Medsafe (this will be requested on the Medsafe application form).



Paracetamol



Losec



Atrovent

How? Technical

- Database My SQL Server
- Website PHP
- Outside server
- 358,000 records
 - NZMT 50,000
 - Pharmac 8,000
 - Medsafe 300,000
- 5,568 CTTs (current products)
- 6,481 CTTs (discontinued products)

How? Technical Operations

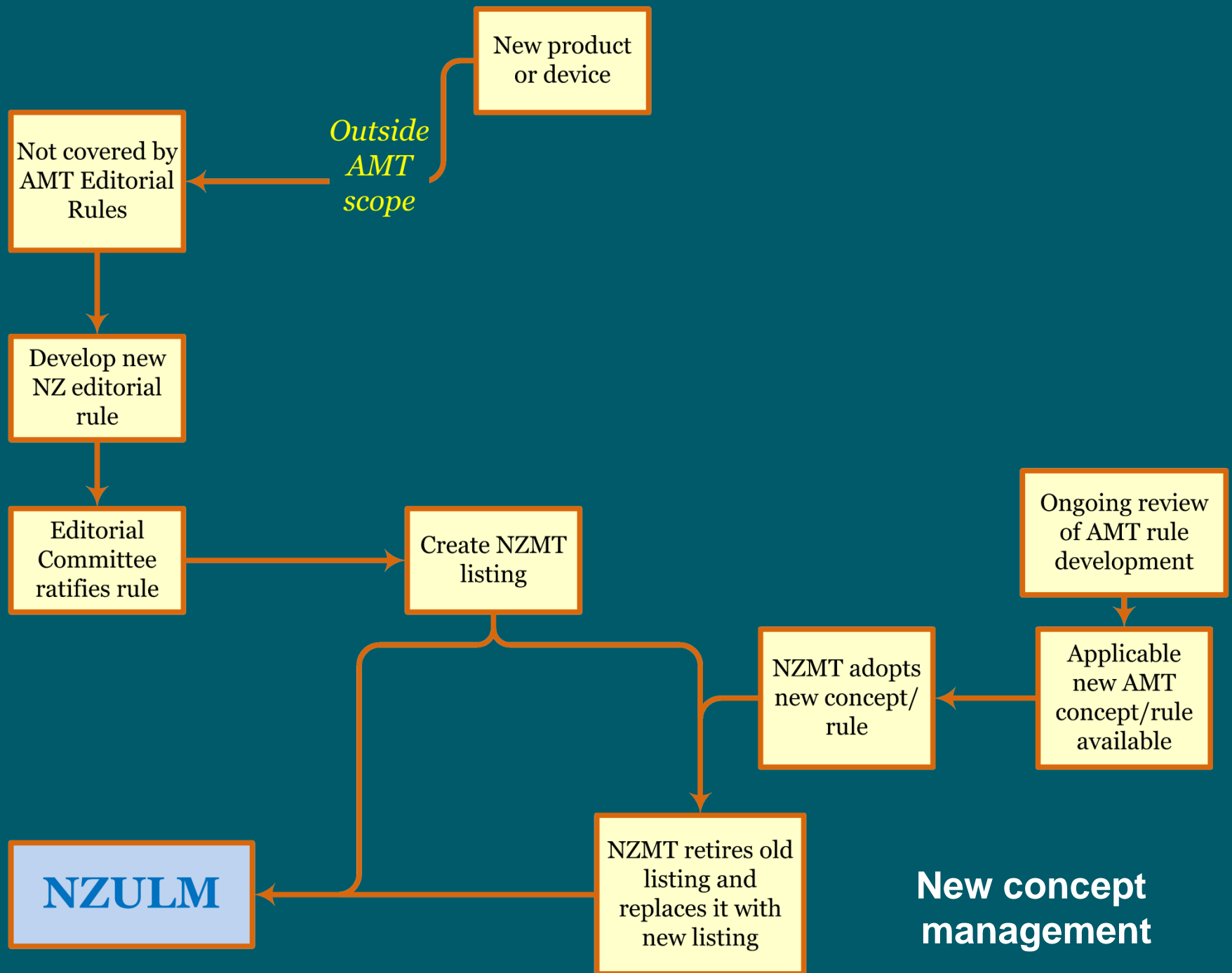
- Project Manager
- 2 Lead Pharmacists
- < 5 Audit Pharmacists
- 9 Editorial Committee Members
- 2 Analyst Programmers



How? Technical Issues

- Complexity of the Data
- Verifying Base Information
- Exceptions to Editorial Rules
- Editing Final Data
- Maintaining Database Structure
- Comparing and Matching with Existing Systems Data
- Quality Control

Drug compound	Salt Forms available	Salt is clinically relevant?	Medicinal Product Name	Substance Name
Morphine	hydrochloride	yes	morphine hydrochloride	morphine
Morphine	sulfate	yes	morphine sulfate	morphine
Morphine	tartrate	yes	morphine tartrate	morphine
Amlodipine	besilate	no	amlodipine	amlodipine
Amlodipine	mesilate	no	amlodipine	amlodipine
Ibuprofen	(base)	no	ibuprofen	ibuprofen
Ibuprofen	lysine	no	ibuprofen	ibuprofen
Ibuprofen	sodium dihydrate	yes	Ibuprofen sodium dihydrate	ibuprofen



Containered Trade Product Pack

Coldrex PE Cold & Flu Day & Night (16 x day tablets, 8 x night tablets), 24 tablets, blister pack

Trade Product Unit of Use

Coldrex PE Cold & Flu Day & Night (Night Tablet) (chlorpheniramine maleate 2 mg + dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5 mg) tablet: film-coated, 1 tablet

Trade Product Unit of Use

Coldrex PE Cold & Flu Day & Night (Day Tablet) (dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5 mg) tablet: film-coated, 1 tablet

Medicinal Product Pack

dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5 mg tablet [16 tablets] (&) chlorpheniramine maleate 2 mg + dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5mg [8 tablets], 24

Medicinal Product Unit of Use

dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5 mg tablet

Medicinal Product Unit of Use

chlorpheniramine maleate 2 mg + dextromethorphan hydrobromide monohydrate 15 mg + paracetamol 500 mg + phenylephrine hydrochloride 5 mg tablet

Complex product nomenclature

Contained Trade Product Pack

Trifeme, 84 tablets [3 x 28 tablets],
blister pack

Medicinal Product Pack

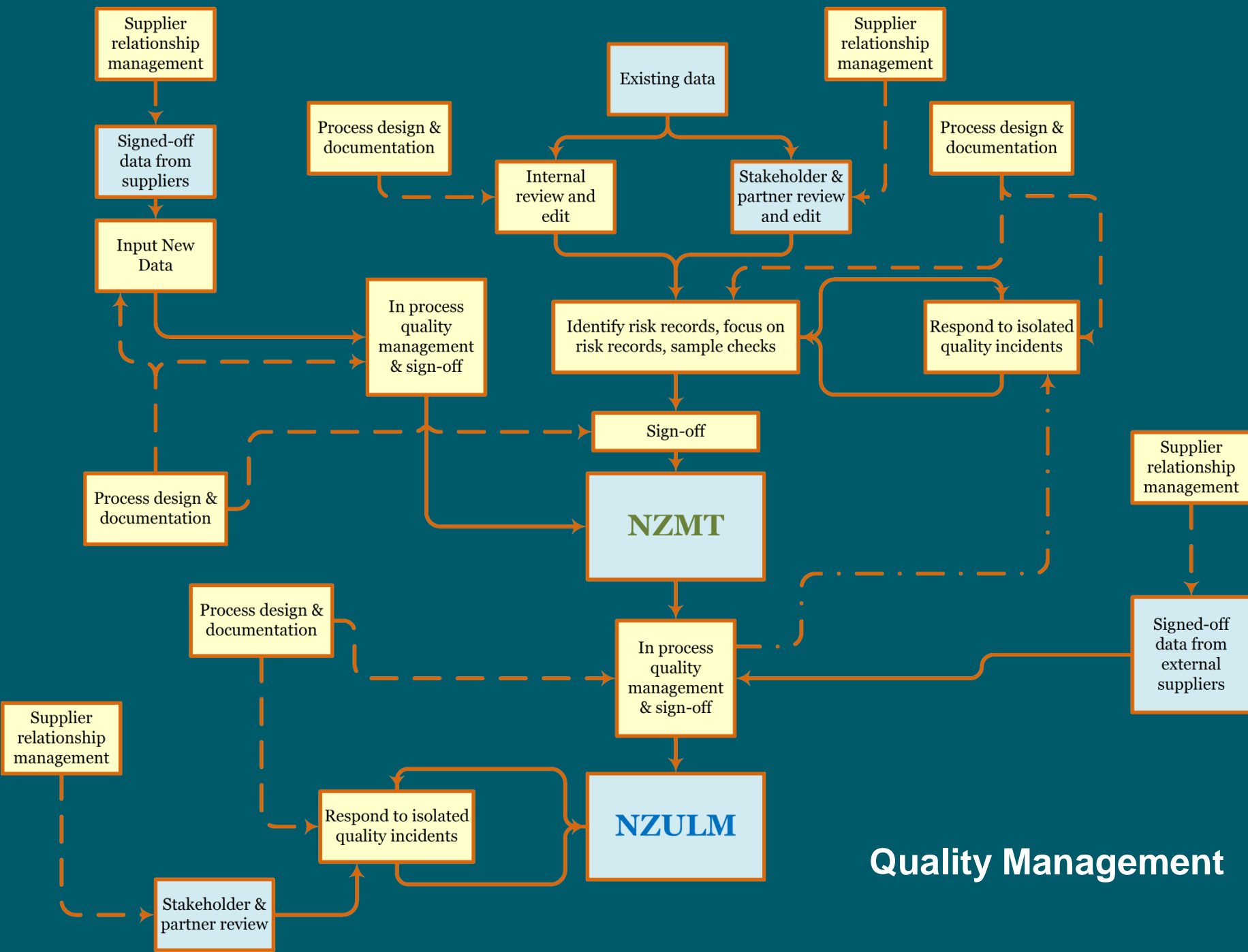
levonorgestrel 50 microgram +
ethinyloestradiol 30 microgram
tablet [18 tablets] (&)
levonorgestrel 75 microgram +
ethinyloestradiol 40 microgram
tablet [15 tablets] (&)
levonorgestrel 125 microgram +
ethinyloestradiol 30 microgram
tablet [32 tablets] (& inert
substance tablet [21 tablets], 84
[3 x 28 tablets]

Standardised names
are too large or
cumbersome for
front line use.
Therefore, need
shortened version.

ABC Pharmacy

The challenge is to
systematically create
short names to
clearly communicate
medicine, dose, &
dose form.

Short Names for Clinical Use



What? NZULM Service

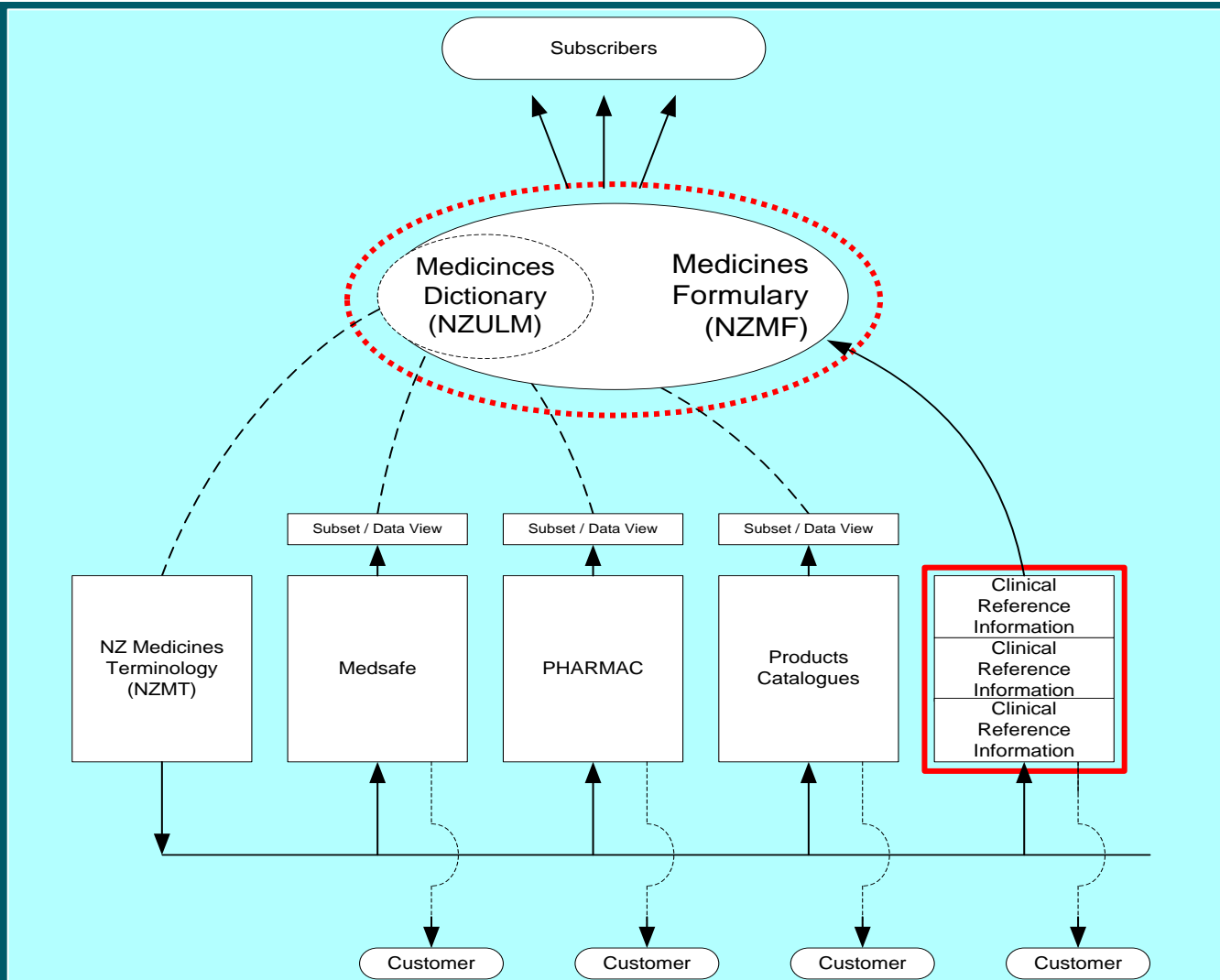


- *“Ensuring that no matter where a Patient is on their journey through the NZ Health system, Clinicians (Doctors, Nurses, Pharmacists) caring for them will all have access to a common reference set of medications to prescribe, administer or dispense.”*
- Up to date and Quality Information.
- Distributed regularly and automatically to users and systems within the Health Service.
- Foundation for “My List of Medicines”.

What? Integration with other Health Systems

- 3 GP Systems
- 2 Community Pharmacy Systems
- 2+ Hospital Pharmacy Systems
- Hospital Management Systems
- Others
 - Anesthetics
 - Pharmacovigilance
- Tests 1 GP, 1 Pharmacy and 1 Hospital System currently underway
- Updates same as for Anti Virus software

What? The NZ Medicines Formulary



Contains NZULM plus clinical information

What? The NZ Medicines Formulary



- Budget \$1.068 million
- Clinical Advisory Group
- Timetable
 - December 2010 Specification of Requirements
 - February 2011 Decision on Supplier
- Integration with NZULM
- Integration with Health Systems

What? NZ Medicines Formulary Specifications

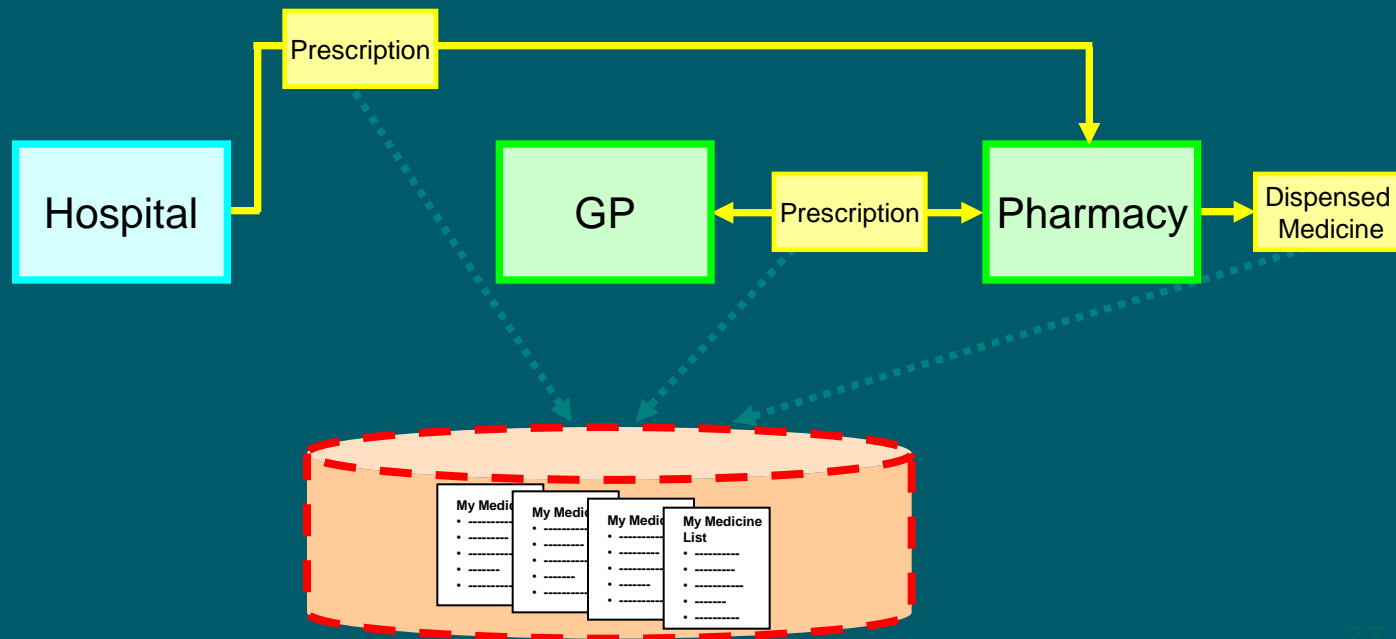
- Clinical Advisory Group
- Not Paint by Numbers
- Current Information of drugs
 - Data Sheets, Medsafe, BNF
- Allergies
- Interactions
- Access to Prescribing Guidelines

What? NZ Catalogue of Medicines (and Devices)

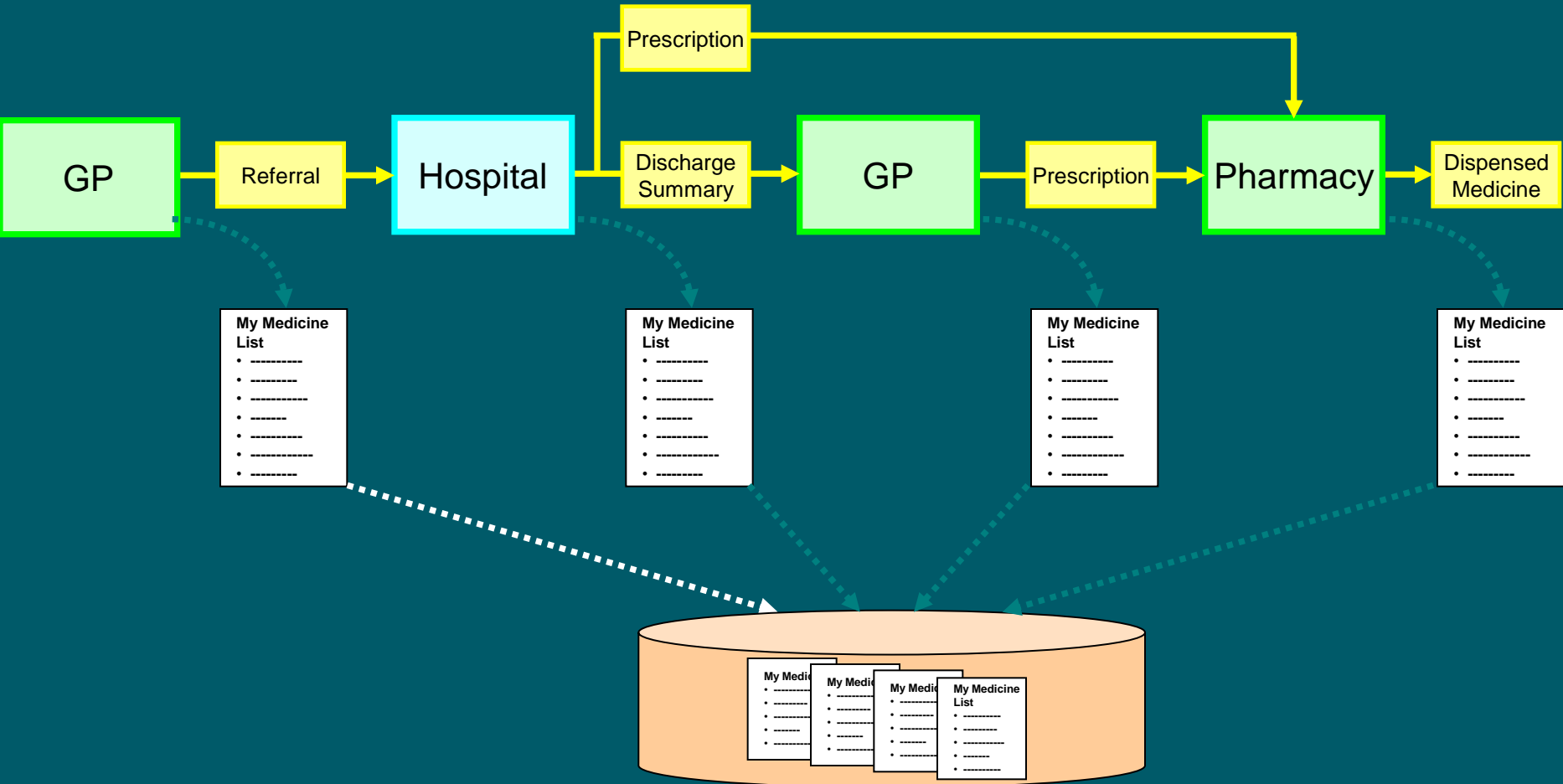


- Pharmacode
- GS1 International Standards
- GS1 Net
- Australian National Product Catalogue
- National Shared Services Agency in NZ

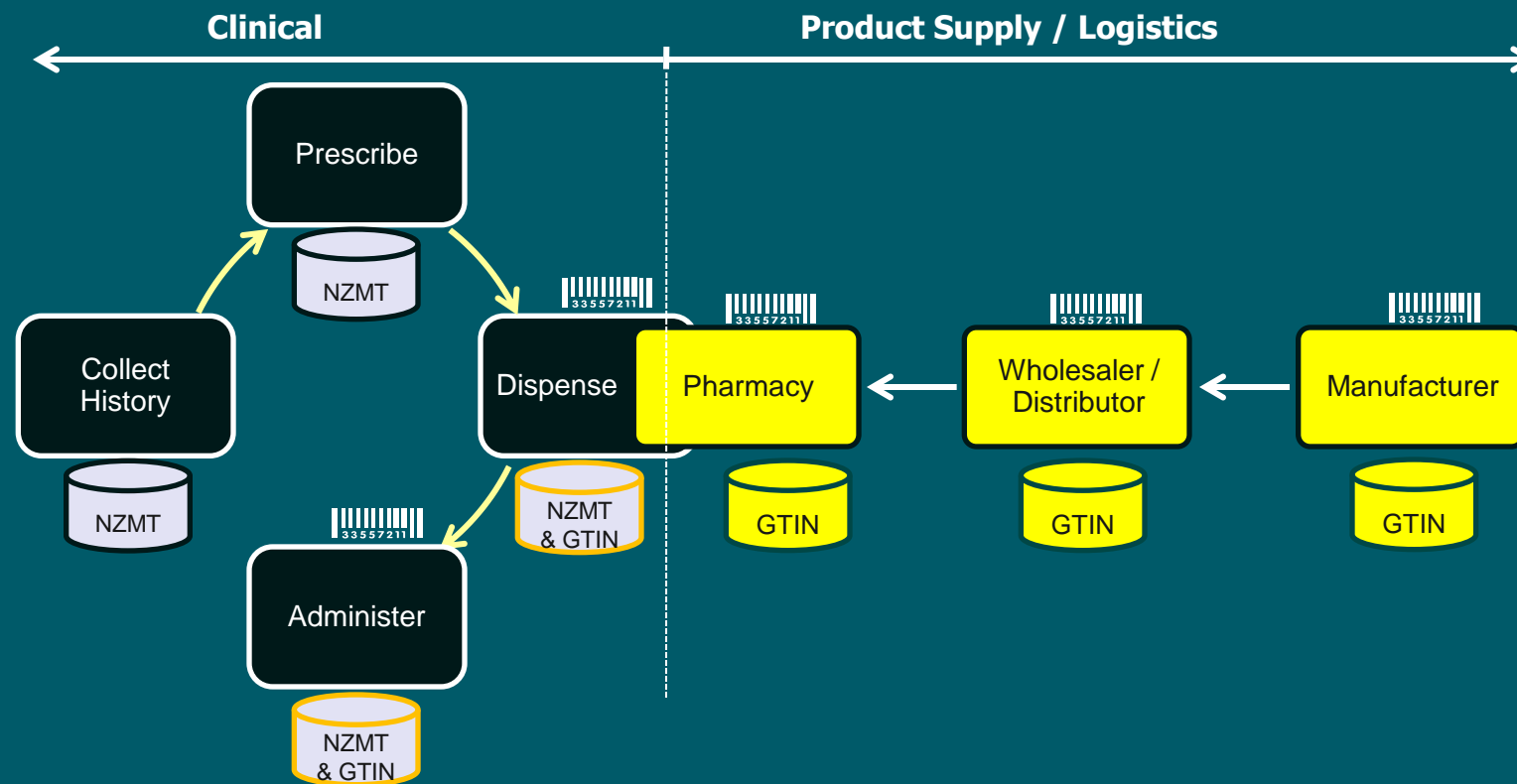
What? NZ ePrescription Service



What? My List of Medicines



What? Terminology & Product ID's



One barcode can be used from manufacturer to the bedside, supporting both clinical and product supply needs

What? My List of Medicines

- “No matter where I go in the NZ Health System both I and my Clinicians will always know what Medicines I have been prescribed and. My List of Medicines.”





