PharmBiz

Software Vendors Forum
17th October 2011 (redacted)

Agenda

- Introduction/setup
- Review Action Items
- ‘For Developers’ website
- Chemotherapy Measure
- PharmCIS transition
- PBS Number
- Continued Dispensing
- Other Business
- Meeting Close

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‘For Developers’ Website

- dev.pbs.gov.au
- xml.pbs.gov.au has been retired
- links will redirect

‘For Developers’ Website

- Provides access to embargoed data
- Secure members-only area
- Application form available soon

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Chemotherapy

- Revised Arrangements for the Efficient Funding of Chemotherapy Drugs
- 5CPA
- Replaces ICSP

Chemotherapy

- Transition arrangements
- Will apply from 1 December 2011
- To allow claiming of existing scripts
  - Written up to 30 November 2011
- End of transition period under review
  - Minimum 4 months

Chemotherapy

- Still aiming for 1 December 2011
- Issues with certain Public Hospitals
- Considering staged implementation or other arrangements
- Liaison with stakeholders continuing on weekly basis

Chemotherapy

- Data availability
- PBS XML v2.6
  - October/November: only for infusible items
  - Late November: for all items
- PBS XML v1.8 (text extracts)
  - only for ready-prepared items

Chemotherapy

- Infusible listings interim data source
- AMT Concept IDs
- Only ~~TPPs~~ TPUUs
- Mapping not complete
- ~~Non-AMT IDs given for unmapped concepts~~
  Unmapped concepts use DoHA SCT namespace

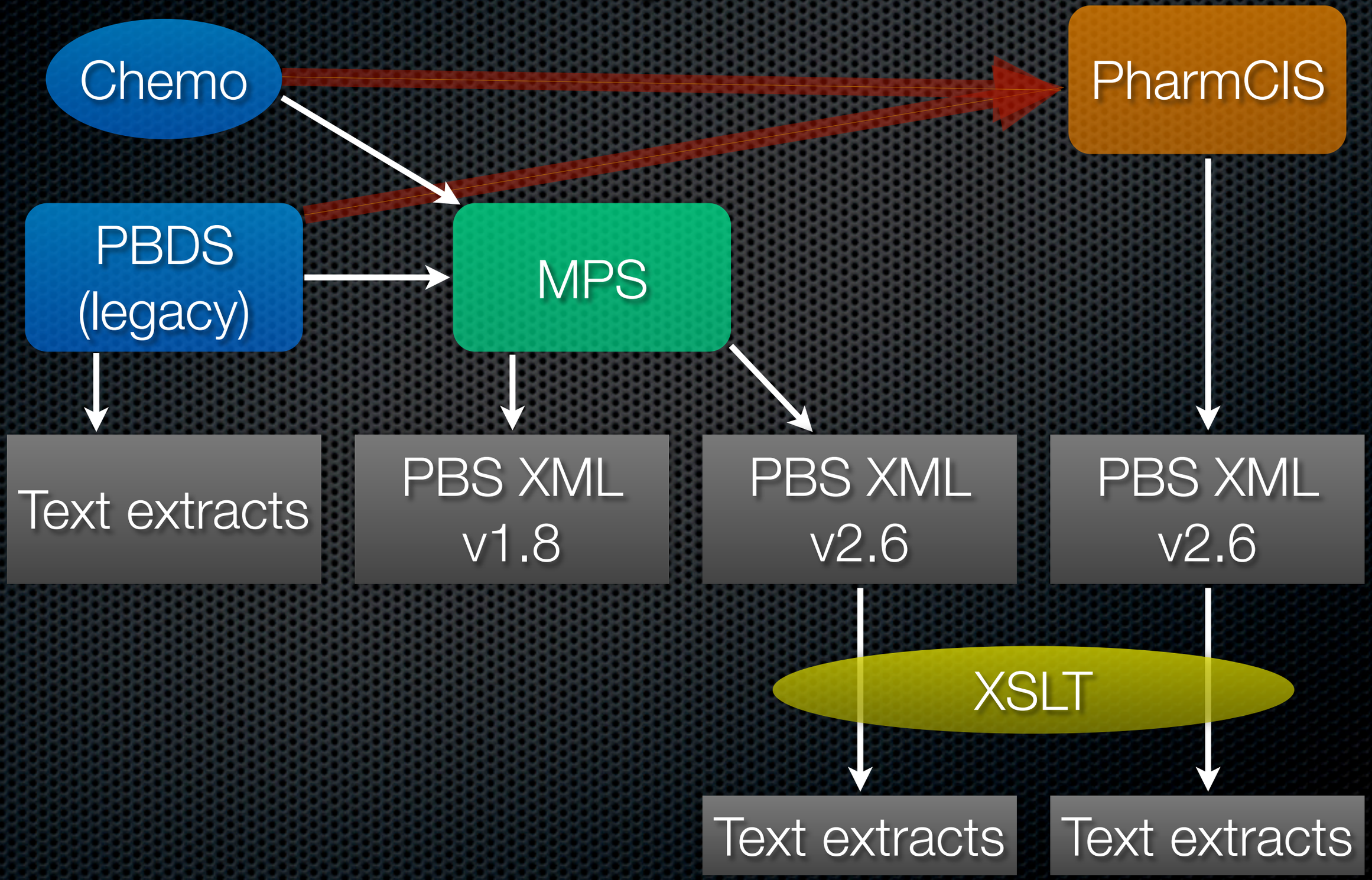
Chemotherapy

- Upconvert legacy data to PBS XML v2.6
- Subject to limitations of legacy data
- Merge with infusible items
- Single source
- Requires further QA

Chemotherapy

- Test strategy
- Incremental release of test documents
- Quantitative testing of extracts
- Qualitative testing of samples
- See also testing of PharmCIS generated PBS XML

Chemotherapy



Chemotherapy

- Prescription specifies dosage
- Expressed in Unit Of Measure
  - Usually “1 milligram” (“1 mg”)
- Other UOM not possible
  - ~~250~~ 1 microgram
  - ~~500~~ 1 IU

Chemotherapy

- Listing
- All TPPs listed in PR regardless of size
- TPPs include mass of active ingredient
  - “pack content”
- TPP ≠ TPUU (Pack ≠ Vial)
  - “vial content”

Chemotherapy

- TPP reimbursement price ex-man (TPUU $ex-man)
- TPP manufacturer price ex-man (TPUU $ex-man)
- Can be different
  - TGP/OSPC ~~or Brand Premium~~
  - Reimbursement/manufacturer ~~DPMQ~~DPMA calculated
  - ~~Other DPMQs not defined~~

Chemotherapy

- Premiums
- Manufacturer DPMA: use man. $ex-man
- Reimbursement DPMA: use reim. $ex-man
- Patient Contribution = Man. DPMA - Reim. DPMA
- TGP/OSPC - can be exempt
- No Brand Premium

Chemotherapy

- Pricing formula
- Derive TPUU price from TPP price
- ~~Use TPUU price to calculate markup for whole pack~~

Use TPUU price in PBS XML

Chemotherapy

- ~~Software solution:~~
- ~~TPUU (vial) content = TPP (pack) content / pack size~~
- ~~TPUU $ex-man = TPP $ex-man / pack size~~
- ~~TPUU markup: ceiling(MA / vial content)~~
- ~~TPP markup: TPUU markup * pack size~~
- ~~No rounding~~

Chemotherapy

- Data solution:
- ~~If TPP pack size ≠ 1~~
  List TPUU rather than TPP
- ~~Include “fake” TPP with pack size = 1~~
- ~~“fake” TPP $ex-man = TPUU $ex-man~~
- ~~Non-AMT concept ID clearly identified~~

Chemotherapy

- ~~Sunset clause~~
- ~~Withdraw ‘fake’ TPPs after 12 months~~
- ~~1 December 2012~~

Chemotherapy

- What vial combination?
- Least cost ~~to Commonwealth~~ vial combination algorithm
- Wastage not a concern
- ~~Only determines reimbursement price~~
- Any combination may be dispensed

Chemotherapy

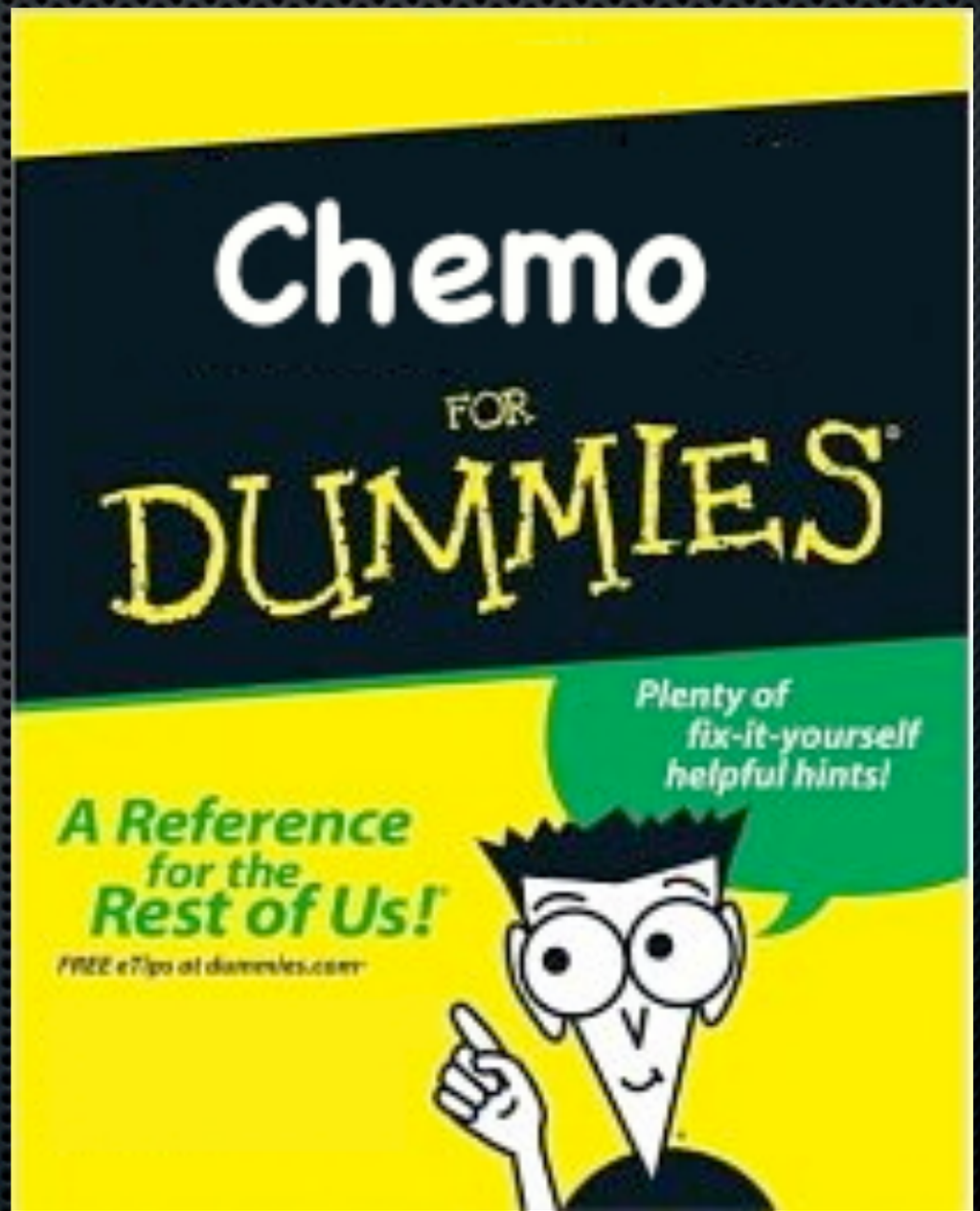
- Algorithm inputs:
  - Listings
    - Mass of active ingredient, not vial volume
    - Infusible drug
    - Prescribed dosage
    - Dispensary type
    - Price type: reimbursement or manufacturer

Chemotherapy

- Algorithm outputs:
  - ~~Reimbursement~~ Infusion price
  - Sample ~~TPP~~ TPUU combination

Chemotherapy

- Algorithm version ~~6~~8
- All combinations
- Shortcuts
- TPUU



Chemotherapy

- Example: ~~Cisplatin~~ Arsenic Trioxide
- TPPs:
  - Phenasen (PL) 10mg in 10mL $400.83
  - ~~Pack size = 10, pack content = 100~~
    vial content = 10

Chemotherapy

- Example:
- Dispensary type: Community Pharmacy
- Prescribed dosage: 18mg (max amount)

Chemotherapy

- Step 0: Calculate ~~pack~~ vial price for all TPPs
- For Community Pharmacy, Price Ex-manufacturer for Maximum ~~Quantity~~ Amount determines markup band
- TPUU $ex-man = TPP $ex-man / pack size
- TPUU pharmacy price = TPUU $ex-man + markup
- PBS XML lists TPUU pricing data

Chemotherapy

- Example: MA = 18mg
  - TPUU: Phenasen (PL), vial content 10mg
    - ceiling(18 / 10) = 2
    - $ex-man 4 MA = 2 * $40.083 = $80.166
    - 10% markup = $4.0083
    - TPUU pharmacy price = $40.083 + $4.0083 = $44.0913

Chemotherapy

- Example: MA = 18mg
  - ~~TPP: Phenasen (PL), pack content 100mg~~
    - ~~ceiling(18 / 100) = 1~~
      - ~~$ex-man 4 MA = 1 * $400.83 = $400.83~~
      - ~~$18.00 markup~~
      - ~~TPP pharmacy price = $400.83 + $18.00 = $418.83~~
  - ~~$418.83 ≠ 10 x $44.0913~~

Chemotherapy

- Step 1: Compute per-UOM-price ∀ ~~TPPs~~ TPUUs
- ~~TPP~~ TPUU ex-man price / mass active ingredient
- No rounding

Chemotherapy

- Example:
  - Phenasen (PL) 10mg vial $ex-man = $40.083
    - per-UOM-price = $4.0083

Chemotherapy

- Step 2: Grouping and sorting
- First group ~~TPPs~~ TPUUs by per-UOM-price
- Sort groups in ascending order of per-UOM-price
- Secondary sort: descending order of ~~pack~~ vial content
- Group together ~~TPPs~~ TPUUs with equal ~~pack~~ vial content

Chemotherapy

- Example:
  - Phenasen (PL) 10mg puomp = $4.0083

Chemotherapy

- Step 3: No-Wastage Shortcut
- Take first ~~TPP~~ TPUU group
- Has lowest per-UOM-price
- If some combination of ~~TPPs~~ TPUUs in this group exactly provides dosage then stop

Chemotherapy

- Step 3
- Start with first ~~TPP~~ TPUU subgroup in ~~TPP~~ TPUU group
- Largest ~~pack~~ vial content
- If ~~pack~~ vial content > dosage then skip
- If dosage mod ~~pack~~ vial content = 0 then stop
- Otherwise try 1..floor(dosage / vial content)

Chemotherapy

- Example: dosage D = 15mg
- Consider TPUU group puomp=$4.0083
  - Phenasen 10mg, 1 subgroup
  - D mod 10 = 5

Chemotherapy

- Step 4, substeps:
- 4a: use only lowest puomp, largest vial content
- 4b: use lowest puomp, all other smaller vial content (recursive)
- 4c: use 4a → 0, fill remainder dosage with higher puomp only if possibly cheaper (recursive)
- 4d: use all higher puomp (recursive)

Chemotherapy

- Example: Step 4a
- TPUU group Phenasen 10mg, 1 subgroup
- #TPUUs = ceiling(15mg / 10mg) = 2
- 4a price = 2 * vial price = 2 * $44.0913 = $88.18

Chemotherapy

- Example: Step 4b
- TPUU group Phenasen 10mg, 1 subgroup
- no other subgroups
- 4b price = $∞

Chemotherapy

- Example: Step 4c
- TPUU group Phenasen 10mg, 1 subgroup
- #TPUUs = floor(15mg / 10mg) = 1
- new dosage = 15mg - 1 * 10mg = 5mg
- No other TPUU group
- 4c price = $∞

Chemotherapy

- Example: Step 4d, dosage 15mg
- No other TPUU group
- 4d price = $∞

Chemotherapy

- Example: Step 4
- Price = min($88.18, $∞, $∞, $∞)
  = $88.18
- TPP combo =
  0.2 x Phenasen 10mg in 10mL, 10

Chemotherapy

- Add infusion fees
- Wholesale fee $24.00
- Diluent fee $4.75
- Preparation fee $40.00
- Dispensing fee $6.42
- Total: $163.35

Chemotherapy

- PBS XML ~~v2.4~~ v2.6
- No changes planned for text files
- Additional XSL stylesheet
  - amt.xsl

Chemotherapy

```
<pbs:prices puomp="4.0083">
  <pbs:tpp-list>
    <pbs:ex-manufacturer>400.83</pbs:ex-manufacturer>
    <pbs:tpuu-ex-manufacturer>40.083</pbs:tpuu-ex-manufacturer>
...
```

Chemotherapy

```
<pbs:prices puomp="4.0083">
  <pbs:tpp-list>
    ...
    <pbs:pack-price>
      <pbs:price dispensing-rule="http://schema.pbs.gov.au/DR/IN/S90-cp">
        <pbs:amount>440.91</pbs:amount>
        <pbs:markup xlink:href="#abcsu">40.08</pbs:markup>
      </pbs:price>
      ...
    </pbs:pack-price>
...
```

Chemotherapy

```
<pbs:prices puomp="4.0083">
  <pbs:tpp-list>
    ...
    <pbs:tpuu-pharmacy-price>
      <pbs:price dispensing-rule="http://schema.pbs.gov.au/DR/IN/S90-cp">
        <pbs:amount>44.091</pbs:amount>
        <pbs:markup xlink:href="#abcsu">4.008</pbs:markup>
      </pbs:price>
      ...
    </pbs:tpuu-pharmacy-price>
...
```

Chemotherapy

```
<pbs:prices puomp="4.0083">
  <pbs:tpp-list>
    ...
    <pbs:pack-content unit="mg" amount="1">100</pbs:pack-content>
    <pbs:vial-content unit="mg" amount="1">10</pbs:pack-content>
...
```

Chemotherapy

```
<pbs:mpp xml:id="abcmv">
  <dbk:title>I.V. injection 10 mg in 10 mL</dbk:title>
  <pbs:pack-size>10</pbs:pack-size>
  <pbs:pack-content unit="mg" amount="1">100</pbs:pack-content>
  <pbs:vial-content unit="mg" amount="1">10</pbs:vial-content>
```

Chemotherapy

```
<pbs:tpp xml:id="abcou">
 <dbk:title>Phenasen I.V. injection 10 mg in 10 mL</dbk:title>
 <dbk:subtitle>Phenasen</dbk:subtitle>
 <pbs:code
   scheme="urn:snomed-org/sct">78863011000036105</pbs:code>
 <pbs:pack-size>10</pbs:pack-size>
 <pbs:pack-content unit="mg" amount="1">100</pbs:pack-content>
 <pbs:vial-content unit="mg" amount="1">10</pbs:vial-content>
 <pbs:ex-manufacturer>400.83</pbs:ex-manufacturer>
 <pbs:tpuu-ex-manufacturer>40.083</pbs:tpuu-ex-manufacturer>
...
```

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PharmCIS Transition

- PharmCIS currently in testing
- Production in early 2012
- Generating PBS XML v2.6

PharmCIS Transition

- Testing and QA of PBS XML
- Incremental release of test documents
- Include build number (serial number)
- Release Notes
  - Description of dataset
  - Inclusions/exclusions

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PBS Number

- 2011-10-17: most 4 digit codes allocated
- pre-1987 codes: approx 600 codes
- PharmCIS: 200 codes
- Estimated exhaustion: 2014-5?

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Continued Dispensing

- Commences 1 July 2012
- Pharmacists may dispense chronic medicine without script
- Applies to certain PBS Items
  - Indicated by presence of <pbs:continued-dispensing/>

Continued Dispensing

```
<pbs:prescribing-rule type="restricted" xml:id="abchx">
 <pbs:code>2702F</pbs:code>
 <pbs:member-of-list>
  <pbs:member-of xlink:href="#abces"/>
 </pbs:member-of-list>
 <pbs:effectivity>
  <pbs:start>2012-07-01</pbs:start>
 </pbs:effectivity>
 <pbs:continued-dispensing/>
 <pbs:ready-prepared>
  <pbs:mpp-reference xlink:href="#abcgi"/>
```

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Meeting Close

- Next meeting
- February 2012?