

Implementing a new technology/ clinical practice: the DHS view



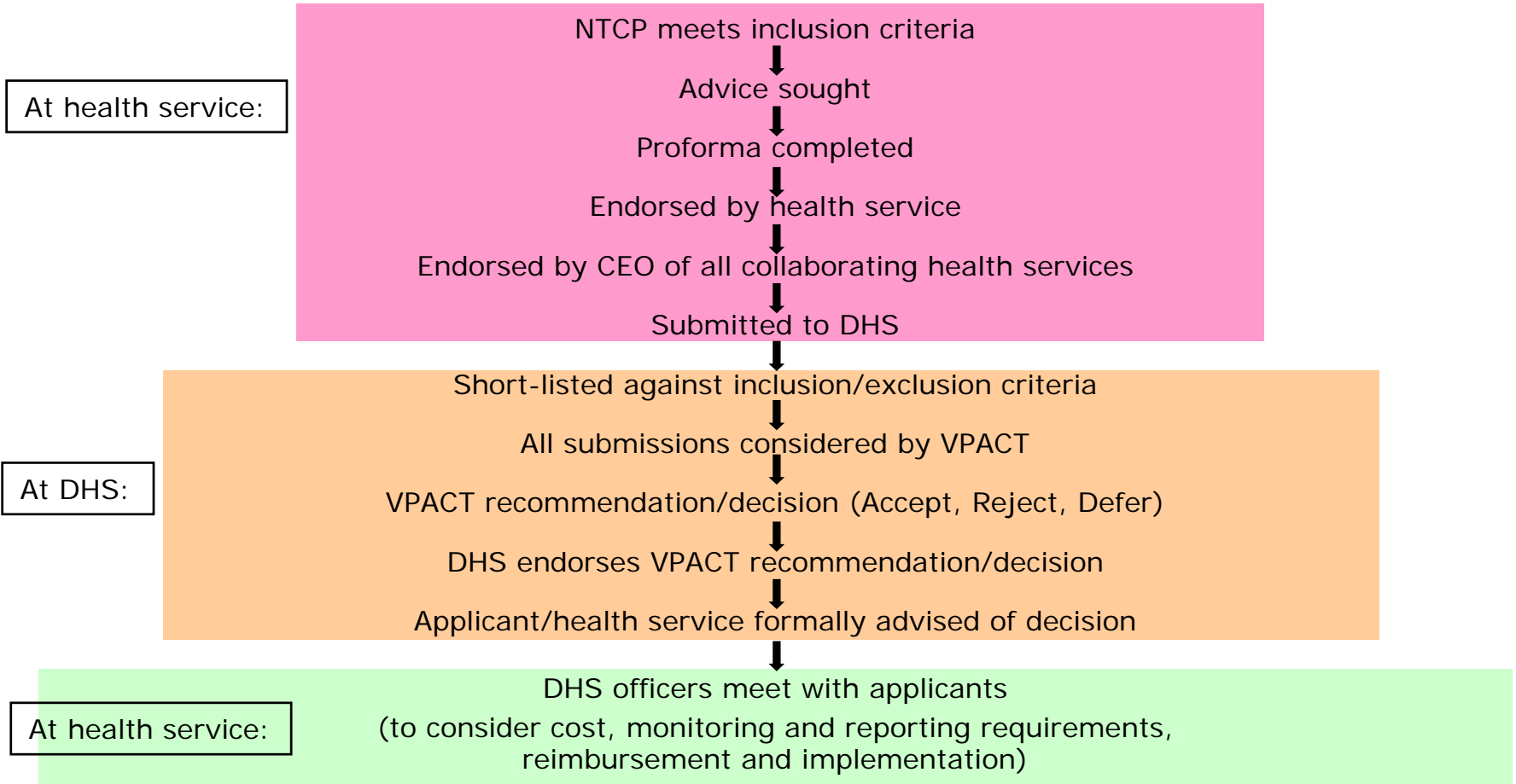
Case study: Coronary artery drug-eluting stents
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Criteria informing VPACT decision-making

- Clinical Need
- Current treatments
- Proposed new technology/clinical practice
- Patient population/numbers
- Evidence of safety, efficacy and clinical effectiveness
- Evidence of cost effectiveness
- Availability of expert guidance/guidelines/protocols
- Clinical feasibility
- Clinical training/competency
- Clinical infrastructure requirements
- Health service impact
- Health service estimates of expenditure, revenue, savings and cost effectiveness
- Clinical governance: monitoring and evaluation of activity, quality, safety and outcomes

- Inclusion criteria (inc. TGA approval if appropriate)
- Proforma completed
 - Evidence of safety, clinical effectiveness and cost effectiveness
- Endorsed by health service Technology/Clinical Practice Committee
- Endorsed by CEO of all collaborating health services
- Submitted to DHS
- Short-listed against inclusion/exclusion criteria
- Short-listed submissions considered by VPACT
- VPACT recommendation/decision:
 - Accept
 - Reject
 - Defer (~pending consideration of additional information)
- DHS endorses VPACT recommendation/decision
- Applicant/health service formally advised of DHS endorsement
- DHS officers meet with applicants (inc. finance and exec reps) to hammer out cost, monitoring and reporting requirements, reimbursement process

Current submission process



Generic issues about introducing new technology/clinical practice

- Variability in decision-making
 - National (HSDG, PBS), state (VPACT), local (DTC, HREC)
- Variability in policy
 - National (Medicare Agreement), state (DHS policies), health service
- Variable funding sources for drugs
 - National (PBS), state (New Technology Program), local (clinical trial, pharmacy budget)
- Variability in regulating/overseeing clinical trials/research
 - TGA, DTC, HREC
- Variability in purchasing health technology
 - Health service driven or centrally driven?

Brief history...

- Drug-eluting stents (DES) approved by TGA in August 2002
- DES 'grandfathered' into Schedule 5 by PHIMDEC
 - private sector DES use without any assessment of clinical or cost effectiveness
- Anecdotally, almost all private patients having PCI receive DES
- Submissions from 6 health services seeking \$ for DES in 2002-03 (not TGA approved by submission deadline):
 - Cost/DES: \$3,800 - \$5,000
 - DES/pt: 1.0 – 1.4
 - DRGs
 - F10Z PCI+AMI
 - F15Z PCI-AMI+stent
 - F66 coronary atherosclerosis
 - F14 vascular proc+mjr reconstruction-pump
 - F16 PCI-AMI-stent

DES use policy

- Developed in 2003-04 in consultation with Directors of Cardiology from all 9 public providers of interventional cardiology
- Purpose:
 - to specify patient conditions in which DES can be used in public patients so that patients, clinicians and managers may be confident that their use is supported by evidence of efficacy, safety and effective resource utilisation
 - to ensure there is a mechanism for monitoring outcomes.

DES policy: background

Policy was developed following consideration of the following:

- A literature review of the efficacy and effectiveness of DES from clinical trials
- Advice from other Australian jurisdictions providing DES to public patients, including senior clinicians
- Consultation with cardiologists from Victorian public hospitals providing PCI
- Reported DES utilisation

Patient profile for approved DES use

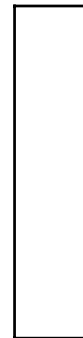
DES should only be provided to patients with one or more of the following characteristics, presentation of which represents a high-risk of developing restenosis within a 12 month period following PCI:

- Diabetes (type I or type II)
- Long coronary artery lesions (>20mm in length)
- Small diameter coronary arteries (≤ 2.5 mm in diameter)
- Chronic renal failure
- Ostial lesions
- Bifurcation lesions
- Chronic total occlusions
- Previous CABG
- In-stent restenosis.

Process...

- Set quarterly targets
- Monitored actual activity
- Actual < predicted

Year	Actual	Predicted	\$ cost
2003-04	1,032	1,386	\$2.3 M
2004-05	1,878	2,183	\$3.6 M
2005-06	1,885	2,725	\$3.5 M



Reimbursement for DES use in public hospitals

- In 2003-04, 1.4 DES/procedure & 40% all PCI cases using DES
- In 2004-05, 1.2 DES/procedure as reported by health services
- In 2005-06, as for 2004-05:
 - Reimbursement paid to predicted
 - Only 1 hospital exceeded estimated DES use
 - Actual DES use in other 8 hospitals ranged from 63-91% of estimated activity

Intended ongoing reimbursement: mainstream DES costs for public patients

- Cost weights for relevant DRGs revised to incorporate DES use in PCI procedures [*F10Z (PCI+AMI) & F15Z (PCI-AMI+stent)*]
- Based on:
 - \$2,400 per DES
 - 1.2 DES used per PCI procedure
 - DES used in 40% of PCI cases
- Expected outcome: DES use in appropriate patients funded through cost weights/WIES

What actually happened...

- Cost weights revised as indicated for 2006-07
 - as per policy and as per reported clinical practice
- Victorian Advisory Committee On Casemix Data Integrity (VACCDI) endorsed the revised cost weights

BUT...

- 2006-07 health service overall WIES target did not grow to accommodate the 2 revised cost weights therefore increasing pressure on a capped budget

In summary

- Process is right
- Clinical practice is right
- The challenge remains to mainstream costs for new technology
- Public sector DES use has driven down DES cost
 - \$3,300/DES in private sector (MJA 2007)
 - Will new DES/competition further reduce DES cost?