It’s all about the bling!

“Price Tag”

Olga Brochner
Clinical Nurse Specialist, ADHB

It’s not about the money money money
We don’t need your money money money
We just wanna make the world dance
Forget about the price tag
Ain’t about the uh cha-ching cha-ching
Ain’t about the yeah b-bling b-bling
Wanna make the world dance
Forget about the price tag

Jessie J

Health economics & sustainability of current anti-VEGF injections

• Can we? / Can’t we?
• ADHB ophthalmology strategy

Our ageing population

Like most of the developed world, New Zealand has an ageing population.
By 2034, it's projected:
• Around one in 4.5 New Zealanders will be aged 65-plus
• That's 1,238,500 million people
• It's an additional $47,300 over 65%, up from a total of 711,289 in 2016.
• Or a 77 per cent increase

Contrast that with the under 4's:
• There will be 901,000 children by 2034.
• It's an extra 78,000 under 14, up from 921,000 in 2016.
• It represents only a 7.5 per cent increase

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**Anti-VEGF Trials**

**AMD**
- Bevacizumab: CATT & IVAN
- Ranibizumab: Anchor & Marina & Resolve
- Aflibercept: View 1 & 2
- Fight Retinal Blindness (FRB)

**Diabetic Retinopathy**
- Restore
- Diabetic Retinopathy Clinical Research Network (DRCR Retina Network)
- Fight Retinal Blindness (FRB)

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**NZ costs**

- Bevacizumab: 2012/13 = $880,000 (90%) 2015/16 = $1,620,000
- Ranibizumab: 2012/13 = $200,000 2015/16 = $2,820,000
- Treatment $ underestimated: administration

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**Age-related Macular Degeneration: Model of care assessment and recommendations.**

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**Source:** PHARMAC Annual Report 2015/16. Note that figures include all uses of these medications, not just AMD.
OTC 2020
Presenter: Olga Brochner
Title: It’s all about the bling

**Space!**
- Assessment & / or injection anti VEGFs

**“Burden”**
- Patient numbers ↑
- Resources demand
- Direct health care system costs
- Hidden costs

**RCOphth Strategic Plan 2020-2022**

**Disability**

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Sight loss “burden”

- Impact on wellbeing from disability
- Monetary estimate for reductions in quality of life
- DALYs: disability-adjusted life-years: years of healthy life lost due to disability
- QALYs: quality adjusted life years

“Substantial economic & loss of wellbeing cost”

Overall, New Zealand society could expect to suffer around 945 DALYs, and receive benefits of approximately $751 million if timely and adequate treatment occurs. Noting that only mild and moderate cases can receive timely and adequate treatment, the costs were estimated to be around $2.8 million. With current treatment patterns, society may forgo as much as $72.3 million in net benefits.

The total cost of vision loss from AMD was estimated to be $391.1 million in 2016, or $19,727 per person with AMD. Of the total cost, the economic costs were $89.6 million ($4,521 per person), and the value of lost wellbeing was $301.5 million ($15,207 per person). Health system expenditure represented the largest component (69%) of economic costs.

Blindness from AMD was estimated to contribute $226.6 million, or $45,677 per person with blindness. This represented 55% of the total costs due to AMD in 2016, and was comprised of $28.3 million in economic costs as well as $188.4 million in loss of wellbeing.

Prevention / detection & risk stratification

Intravitreal anti-VEGF treatment

Low vision rehabilitation
Health outcomes / costs

- Loss independence
- Depression
- Care
- Economic – employment

Model of care “unsustainable”

- Workforce mix
- Funding arrangements
- Treatment approach.
Specifically, the proposed model is intended to:
- Enable faster access to diagnosis, treatment and rehabilitation for people most likely to benefit
- Support preventive activities
- Enable care to be delivered closer to home
- Make best use of health professionals’ skills and time
- Make best use of technology and other infrastructure within the New Zealand health system.

ADHB ophthalmology

- New models of care
- Multi-disciplinary
- Collaboration

“Nurses step up to meet demand for specialist eye treatment”
February 2016 Vol 16 (1)
**Title:** It’s all about the bling

**Rapid access**
AMD / macula clinics

**New anti-VEGF agents**
- Oral delivery ???

**A.I.**
Clinically applicable deep learning for diagnosis and referral in retinal disease

**I.T.**
Recommendation 19 - Improve data collection and analysis according to nationally consistent specifications to allow monitoring of performance and measurement of patient gains made, and to provide a base to continue to improve the management of AMD in New Zealand

Led by: Ministry
Safety and Feasibility of a Novel Sparse Optical Coherence Tomography Device for Patient-Delivered Retina Home Monitoring

Peter Makita1, Kingsley C. Ng2,1, Pascal W. Hozzo1, Daniel Bartheleme1,2, Patrik Arnold1,4, Noraer Matthias1, Hendrik P. N. Scholl1,3, Hendrik Gerding1, Justin Garsky1, Tjebbe Heeren3, Konstantinos Balakas1,2,3, J. Emmanuel Ramos de Carvalho1, Catherine Epin1, Adrian Tubeli1, and Sandrine A. Zweifel1

- New ways to monitor
- Transport / space issues
- Screening ???

Anti-VEGFs
- ↑ burden ophthalmic services
- “Cost” of sight loss
- Change models of care meet demands

Conclusion

Table 4.1.2 presents total health system costs by component in 2009 and 2020. Overall, health system costs are estimated to rise to $32.0 million by 2020 or $33.0 per person with vision loss. The comparison to a total cost of $14.6 million in 2009 ($1,160 per person with vision loss).

<table>
<thead>
<tr>
<th>Component</th>
<th>2009 Health System Costs (NZ$)</th>
<th>2020 Health System Costs (NZ$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>7,297,092.02</td>
<td>19,773,679</td>
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<tr>
<td>General care</td>
<td>6,351,890.90</td>
<td>7,516,107.37</td>
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<tr>
<td>Optometry</td>
<td>6,672,140.00</td>
<td>9,047,720.00</td>
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<tr>
<td>GP</td>
<td>3,122,910.00</td>
<td>5,315,058.00</td>
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<tr>
<td>Research</td>
<td>3,754,359.00</td>
<td>6,803,052.00</td>
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<tr>
<td>Pharmaceuticals</td>
<td>2,374,258.00</td>
<td>3,025,192.00</td>
</tr>
<tr>
<td>Total</td>
<td>27,873,000.00</td>
<td>39,701,940.00</td>
</tr>
</tbody>
</table>


Thankyou

Dr Sophie Hill, Carly Henley, Rebecca Stevenson & Peter Lyons