Hospital Health Technology Assessment: The Hospital Clinic Barcelona Approach

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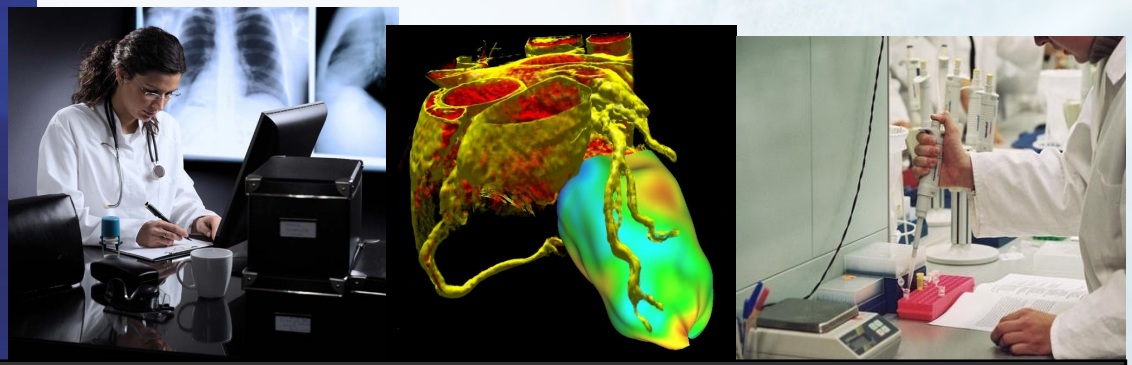

Pannel on Hospital-HTA

8th HTAi Annual Meeting

26-20 Juny, Rio Janeiro 2011

Outline

- The Hospital Clinic of Barcelona (Catalonia, Spain) and Health Technology Assessment
- HTA as an input to the Hospital Strategic Plan
- HTA tools, process, methods, impact
- Lessons learned: success factors
- Conclusion

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HTA at the Hospital Clinic Barcelona (HCB)

- **Clinic Hospital**: Teaching/High Tech and Community Hospital
- Population coverage: High Tech = 7 million; Community = 540.000
- Facilities: 1 Hospital + 1 maternity-Child Hospital + 3 Primary care teams
- Acute care: 839 beds / Long term care: 60 beds ; 1 day hospital
- Mental health: 22 beds for adults and 18 beds for children
- 4,000 workers (600 physicians, 2000 nurses)
- Organized in: 9 Clinical Institutes + 2 (laboratory & Diagnostic Imaging) + Transversal Directions (eg. Planning, Structure, Quality, Innovation, Human Resources, Financing)

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HTA at HCB - Ressources:

Placement:

- Innovation Directorate. Hangs from the Medical Direction and CEO.
- Transversal support to all Clinical Institutes (n=9+2)

Within HTA Unit:

- 2,5 HTA full-time specialists (public health, statistics, economics) + 1 (shared) administrative (look for articles)
- Support (ocasionall) from the financing staff of each Clinical Institute

The hospital library

Main point:

- HTA is produced by the HTA Unit with close collaboration of clinicians and financing people
- We produce **consensuated recommendations** with the Clinical Institute, which should present it to the CEO and Executive Board of Hospital

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HTA at HCB - Approach: All Lifecycle HTs

The HTA Unit Functions / Responsabilities:

- **Identify proactively** HTs to assess (Strategic Plan)
- **Assess reactively** HTs that want to be introduced into the hospital
- **Advise** clinicians and Executive directors how to better invest and use resources dealing with HTs
- **Asses innovations** produced at our hospital to help the valorisation & transference process
- To **stimulate** the development of **innovations** with high added valur for society
- To identify HTs to **disinvest / better appropriatness**
- To help into the design of studies dealing with innovative HTs
- To **promote the culture of evaluation** in the Hospital
- To **promote** National & International **alliances** and cooperation in hospital HTA

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HTA as an input in the Strategic Plan: Proactive identification of HTs

Institutes (H. Departments)
Technology Trends
→ Innovation →
Institutes + Innovation →

Inputs : Executive Committee , Healthtech , others

- **Innovation & transfer**
- **Technologies to introduce**
- **Technologies to go through a HTA process**
- **Technologies in horizon 2020**
- **Organizational innovation**

33 HTs with potential for HTA

First meetings with Institutes (day) :
February 2010 : ICOF (16) ICMiD (23), CDB(26),
March 2010 : ICMDM (10), ICT (10), ICN (11), ICEMEQ (17) , IGON (24)
April 2010 : CDI (19) , ICNU (23)
Second meetings with Institutes :
April 2010 : ICT (27) , ICEMEQ (27)
Third meetings with Institutes:
Maig 2010 : ICEMEQ (3), ICT (3), ICMHO (11)

Stratification by:

High/Medium/Low Priority

Assessed Technologies by January 2010 & Strategic Plan 2010-13. Proactive & Reactive identification

Tec. Identificades PE 2010-13	Tec. Avaluades
Prioritat Alta	
Robot Quirúrgic (ICNU, ICT,ICGON)	✓
RM carcinoma mama (CDI)	--
Implantació valvular transaòrtica (ICT)	--
Assistència Ventricular Esquerra (ICT)	X
RM i TC intraoperatori (ICN)	--
Localitzador automàtic metafases (CDB)	✓
RIO mama (ICGON, ICMHO)	✓
RFA circumferencial Esòfag Barret	X
Transplantament membrana amniòtica úlceres venoses (ICMiD)	✓
Neuroestimulació central analgèsica per fibromialgia (ICEMEQ)	--
Teràpies biològiques en osteoporosi (ICEMEQ)	--
Factors de creixement autòlegs en artroplàstia genoll (ICEMEQ)	✓
Equip ultrasò per a revisió de pròtesis de maluc (ICEMEQ)	X
Prioritat mitja	
RIO sarcoma (ICEMEQ)	✓
Noves	Robot preparació citostàtics (Farmacia) #
	Multi-gene tests per guiar tractament càncer mama (ICMHO) #
	Reusable electrosurgical device for bipolar vesel sealing

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The tool for assessment: Modified Mini-HTA

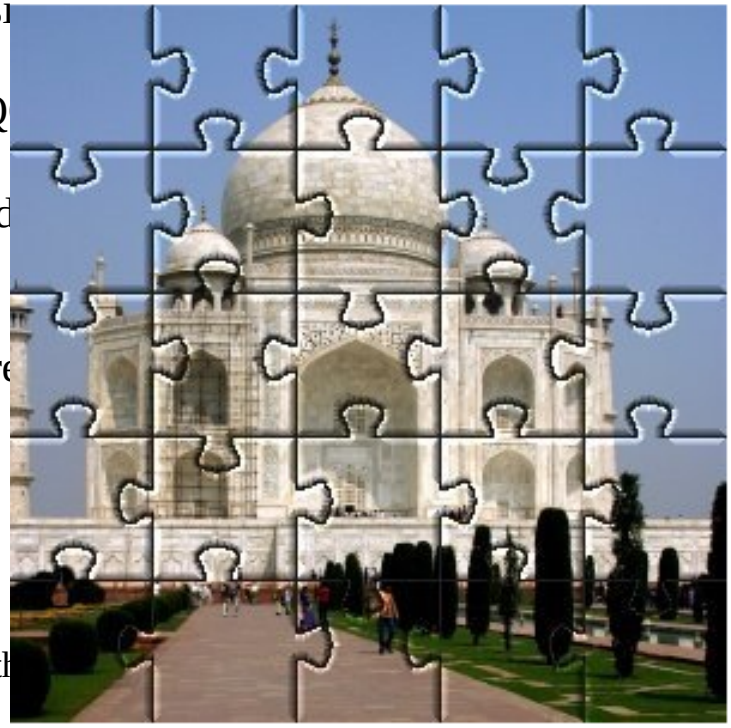
Mi HTA (Di ions (D)=5 V ables (V)=28)

D ? What is the question (PICO)? (V=4)

D2 ch and comparator), scientific evidence quality, safety-veness, diffusi

D3 h status and Q

D4 other clinical d logy (V=7)



D5. Economic impact: incremental cost per procedure

Conclusions: executive summary

Recommendations:

1. Accepted
2. Conditional acceptance (follow-up or negotiation wit
3. Acceptance under research protocol
4. Rejected (value future assessment)

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HTA Process & Methods

The Team and Procedure

Multidisciplinary Team:

- Clinicians
- Nurses
- Innovation
- Economic/management
- Bioengineer
- Others..

The Method:

Scope: PICO

Review scientific Literature (clinical & economic):

National HTA documents + update or HTA from the scratch

Patient Impact

Economic analysis: BIA (incremental cost per procedure + net cost)

Organizational Impact

HTA Process & Methods

Meetings & Timing

Number of meetings: 3-4

Timing: mean= 3 months (1 to 5)

The Impact

Number of mini- HTAs since 03 /09 : N=12
Value of technology assessed: €5.5 K (aprox)

- Acceptance with negotiation: 3
- Acceptance with follow-up: 1
- Approval under research protocol : 3
- Not accepted : 5

Executive Committee from Hospital accepted all recommendations

List of Technologies Assessed

Medium size Medical Devices:

- Deep Brain Stimulation (Parkinson, other dystonia) (n=2)
- Semi-automatic Metaphase Locating and on-screen karyotyping system
- Circumferential epithelial RF ablation for Barrett's oesophagus
- Autologous platelet gel (for Total Knee Arthroplasty)
- Orthosonic system for Cemented Arthroplasty Revision

Big size Medical Devices:

- Frameless Stereotaxy (neurosurgery)
- Intraoperative Radiation Therapy with Linear Accelerator (breast cancer, colo-rectal, pancreas)
- Da Vinci Robot (urology, cardiology, gastroenterology, gynecology)
- Robot *Apoteca Chemo* (Farmacy)

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List of Technologies Assessed

Diagnostic tests:

- Multigene Assay test (for Breast Cancer) (Personalized medicine)

Procedures:

- Amniotic membrane transplantation (treatment of venous leg ulcers)

In progress:

- Left Ventricular Assistive Device
- MRI for breast cancer
- Re-usable electrosurgical device for bipolar vessel sealing

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List of Technologies Assessed: Drugs

HTA helping Hospital to face difficult times

- 10% cuts in ambulatory hospital drugs mandatory from MoH for 2011
- Need to review appropriateness and cost-effective indications
- Review of National & International National HTA of **31 drugs** (high intensive consumption of resources) for **45 clinical indications**. Objectives:
  - Disinvestment
  - Better fit to proven cost-effective indications
- Meetings with clinicians (prescribers) + hospital pharmacy + medical director.
- HTA Role: provide with information (comparative), both clinical (for clinicians) and strategic (for CEO & Medical Director)

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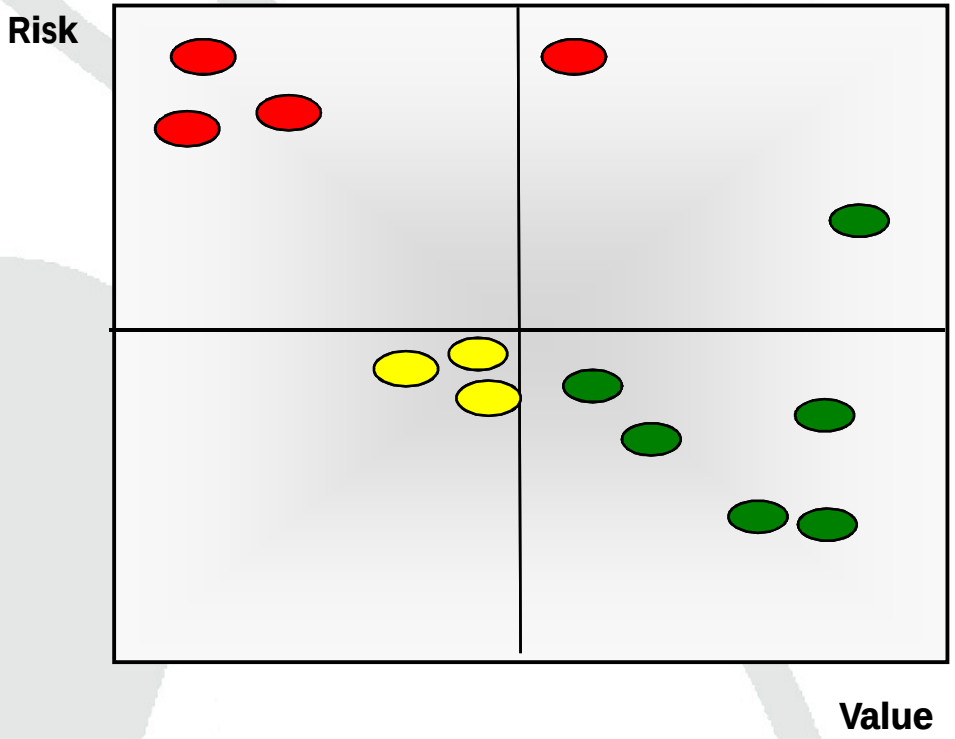
Choosing among competing Health Technologies already assessed with mini-HTA: Software development



Matrix4Value ®

- Based on Mini-HTA
- Two Layers:
  - Criteria weights
  - Comparison new/standard

The definition of good value for money at our Hospital are defined according to:

•Value : clinical benefit, patient implications, CEA, quality of evidence, level of innovation
•Risk : staff impact, space impact, incremental costs, net cost, investment effort

TRADE OFFS ARE UNAVOIDABLE

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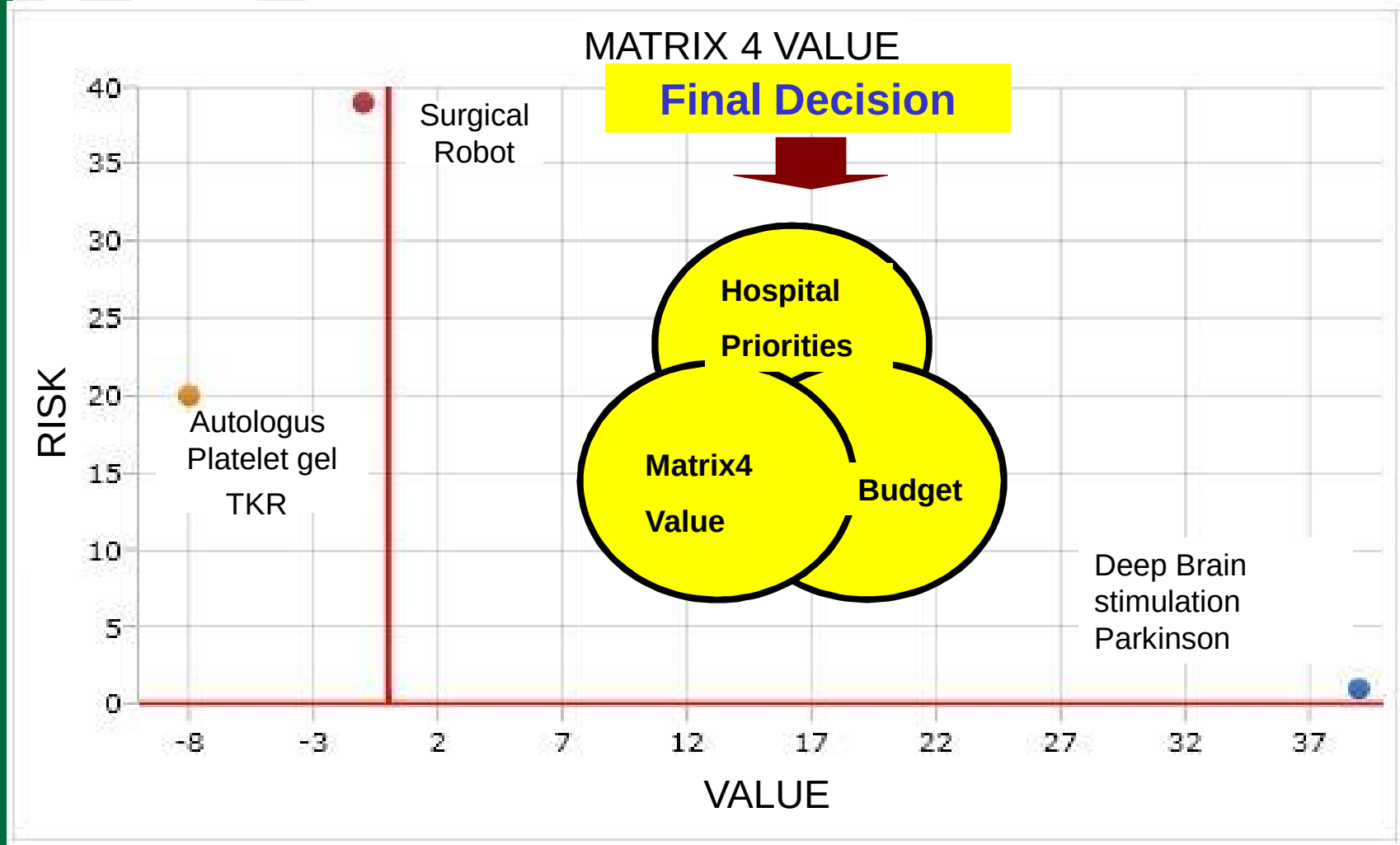
Matrix4Value ®



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Lessons learned: Success Factors

- Commitment of top level directors
- HTA mission is communicated clearly and formally in the hospital
- HTA should not be perceived as a control mechanism& cost reduction but as a way to improve quality of care
- Inclusive and transparent process
- Qualification of the team giving support to the HTA process
- The implementation and use of HTA should take into account hospital values
- HTA should include explicit and clear recommendations
- Hospital acts according the results of HTA

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Lessons Learned: Perception from professionals

- "Professionals feel they are evaluated using professional criteria and not administrative criteria"
- "The use of scientific language (RR, Survival..) during negotiation is well understood and accepted by both managers and professionals"
- "Improves the dialog with the provider of HT"
- "Increase in the perception of "equity" and "transparency" in the HT decisions made by directors at the hospital"

Comments made by Mr. Santi Salva (financing responsible Neurology), 2009

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Conclusion: What does HTA bring to hospitals ?

- A method to approach planning and management of innovative HTs
  - Help in the decision making process
  - Improve dialog between clinicians and managers
- A medium and long term strategy to improve the:
  - Quality of care
  - Fair distribution and allocation of health care resources
- Increase Knowledge for a better policy and practice decision-making at the hospital level

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Thank you for your attention !!

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Exemple mini-HTA: New Deep Brain Stimulators (DBS) for Parkinson, distony & essential tremor

Request from : Dr. Valldeoriola (neurologist), Sr Salvat (finance depart)

- New Equipments. Advantages: smaller, autho-programables, rechargeable (Activa PC)
- **Literature Search:** DBS & Parkinson: 12 systematic reviews identified; DBS & Movement disorders: 4 systematic reviews & 1 economic evaluation
- **Effectiveness**: DBS is effective (improve symtomatology & QOL) in Parkinson and Movement Disorders. Better option than surgery in patients not answering to drugs
- **Safety**: moderate (lack of studies showing real impact on everyday life of secondary effects more prevalent in patients)
- **Cost**: Trend toward CE in Parkinson, no studies identified in movement disorders
- **Quality & Strength of evidence**: Parkinson: Good (Scale Oxford EBM= 1b; NICE= 1 +); Others disorder movements: low (Scale Oxford EBM= 2b; NICE= 1-)
- **BIA**: For Parkinson the standard device is cheaper, the cost of the new equipment is not justified considering new clinical advantages (the new programmable model represent a over-cost of 26%). The new re-chargeable model could be good for dystonies (n=3-4/any), in this case el over-cost of new model will be compensate by the savings in changing of device (break-even point 4 years).

RECOMMENDATION:

- OK new DBS re-chargeable for distonya. Need to negotiate a new payment system with Catalan MoH
- Negotiate price with company regarding new DBS for Parkinson