

# **Medical Technology: A friend or a foe for insurers?**

Heracles Daskalopoulos  
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*Photo is a courtesy of Iatropolis medical group*

## Remarkable yet expensive

- Many innovative medical devices introduced in the last two decades
- Expensive to buy and maintain
- Medicine becomes more and more dependent on technology
- New technology - assisted procedures rapidly become the new standard of practice

## ... does medical technology increase the cost of healthcare?

- Medical technology development has a positive effect on society's wellbeing
- Increasingly challenging to finance an adequate level of healthcare provision
- New technologies affect the severity and frequency of claims
- New procedures are generally more expensive than old

## ... does medical technology increase the cost of healthcare?

- More claims from the fortunate and higher claim amounts from the unfortunate
- Insurer is not involved in the process of deciding on the type and hence the cost of treatment
- Doctors tend to suggest the most modern methods of treatment regardless of the cost
- As new procedures become standard, can we refuse cover?

# Healthcare Institutions must invest in modern technology

- Healthcare Institutions compete actively in terms of the range and the quality of medical services rendered
- Attract doctors rather than patients
- Doctors are compelled to keep up with the latest methods
- Hospitals have no option other than to make the most modern equipment available to them

# Healthcare Institutions must invest in modern technology

## Medical Technology Investment by major Healthcare Institutions

	2011	2012	2013	2014	2015	Total
Amount invested (€m)	24.7	12.8	18.6	21.8	14.7	92.7

- Average amount invested € 18.5 million per annum
- Total health insurance market premium in 2015: € 643 million

## ...but guess who pays in the end

- Investing in new technologies is the right strategy for hospitals but they must increase revenue to cover the additional cost
- A large part of their revenue is our cost
- State payments are too little, too late
- Number of patients without private insurance is diminishing
- Insurers' share of the technology investment bill is increasing



# Are we already paying more in claims ?

What are the most usual cases in which a new technology-aided procedure seems to be replacing a traditional one?

Does the use of the new method increase the average claim? If so, by how much?



Can the reduced hospitalization period offset the increase in cost?

# We are already paying more in claims

## Cost of new method compared to conventional surgery

Diagnosis	Prostate Cancer	Kidney Cancer	Arthroplasty	Valve Replacement
Method	Robotic Surgery	Robotic Surgery	Robotic Surgery	TAVI
Cost difference vs Conventional Surgery	58.13%	37.07%	52.79%	118.54%

# We are already paying more in claims

## Length of stay in hospital

	Prostate Cancer		Kidney Cancer		Arthroplasty		Valve Replacement	
	CS	RS	CS	RS	CS	RS	CS	TAVI
Average stay in days	4.8	3.3	5.7	3.8	4.9	3.1	9.4	6.0
Change in average stay	-31.54%		-34.14%		-35.33%		-35.95%	

CS : Conventional Surgery  
RS : Robotic Surgery

## ...and assisting factors will increase our future claims further

- Aging population and growing prevalence of chronic diseases expected to have a massive impact on the cost of healthcare
- Average healthcare expenditure of an individual aged 65 is 4 times higher than that of an individual aged 40
- Chronic illnesses account for 70% of deaths and of over 75% of direct health care costs

# Traditional methods are not enough to contain costs in the long run

- We attempt to manage of the utilization and cost of healthcare services
- Traditional cost control / cost sharing mechanisms are very effective in the short term but not in the long term
- The progression of “core” healthcare cost is beyond our control
- We run the risk of having a product that everybody needs but very few can afford

## ... but fortunately modern technology provides tools that can help us

- Available technologies allow us to influence the development pattern of major underlying cost factors
- We can reduce claims frequency and restrain claims growth not only in the short but also in the long term.
- The key to unlocking this opportunity is Health Information Technology
- Management and exchange of health information using computerized systems



**Telemedicine**

**Electronic Health Record**

**Mobile health**

**Connected Diagnostic  
devices**

**Wearable technologies**

## ... but fortunately modern technology provides tools that can help us

- Healthy users become more empowered, patients more engaged
- Monitoring of vital data provides the ability to act on early signs of possible health problems
- Adoption of this technology is expected to have a substantial impact on the cost of all levels of healthcare
- H.I.T. can disrupt the increasing trend of medical costs



## ...provided that we can stretch the boundaries of traditional insurance

- To benefit from H.I.T. we need to stretch our conventional role and move beyond the traditional boundaries of our business.
- An example: “Keeping our fingers crossed” for insured diabetics
- Do we manage risk or just pay claims?
- A disease management program can have a very significant effect on both the overall health status of the participants and the cost of claims.

# ...and become the proactive health ally instead of the reactive claims settler



## Reactive Claims Settler Health Ins. Co.

- Pays claims when they occur
- Is based entirely on traditional methods to control cost of claims
- Provides the typical service that customers expect from an insurer



## Proactive Health Ally Health Ins. Co.

- Tries to prevent claims from occurring
- Provides Disease Prevention and Disease Management Programs that effectively reduce cost of claims
- Offers a service of great value to its customers

...the way forward

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*Κάλλιον το προλαμβάνειν ή το  
θεραπεύειν*

*“Prevention is better than cure”*

Hippocrates 460-377 B.C.