



# Implementing Health Technology–Related Decisions: Opportunities and Challenges in a Local Health Care Setting

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April 25, 2016





# Implementing Health Technology–Related Decisions: Opportunities and Challenges in a Local Health Care Setting

Decision-making from hospital management and clinician  
perspectives: how to reconcile differences and move forward

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# disclosures

- Relevant to this presentation

Eric Cohen has received research support, consulting fees and honoraria from

- Abbott Vascular
- Edwards LifeSciences
- Caisson Interventional



# what are some technology-related decisions at the hospital (or regional) level?

- large capital investments
  - hybrid operating room
  - XMR suite
  - replace aging angiography suite
- program initiation
  - should our hospital be providing TAVI and MitraClip services?
- procurement
  - can we consolidate coronary stent inventory and achieve savings?



# what are the differences in perspective between hospital management and clinicians?

- what, why, and how they influence decision making
- how can they be reconciled?
- clinicians / management may be same person wearing different hats
- perspectives  $\neq$  values



# both sides (supposedly) *value* passenger satisfaction





## both sides *value* passenger satisfaction

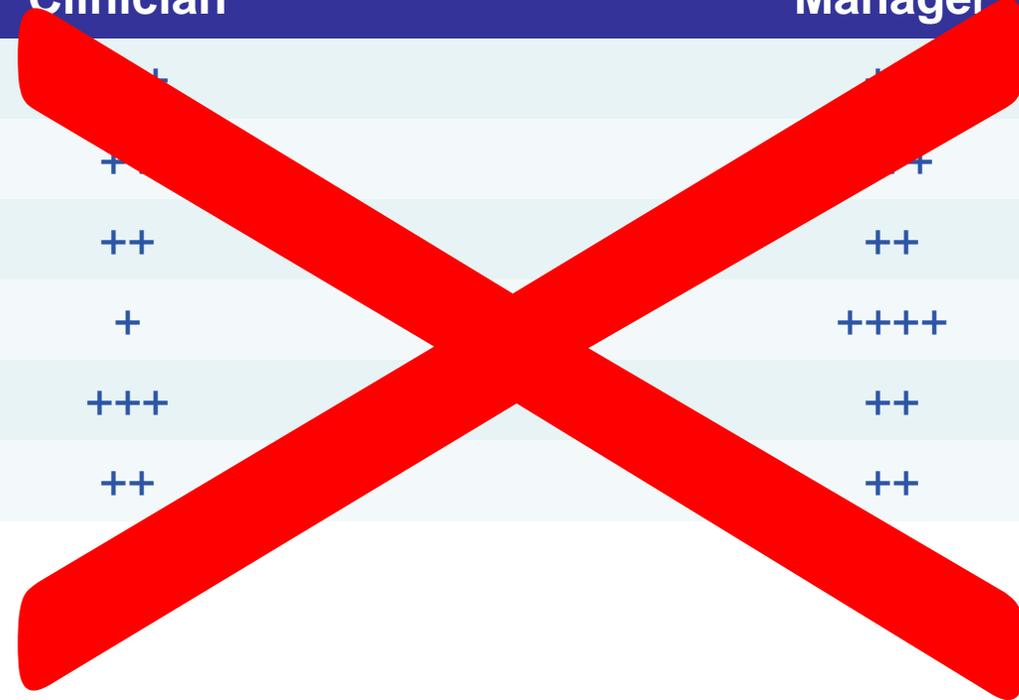


they see it differently  
they define it differently  
they experience it differently



## let's not get to this stage . . .

	Clinician	Manager
Patient outcome	++	++
Efficiency	+	+
Safety	++	++
Financial impact – institutional	+	++++
Financial impact - personal	+++	++
Individual vs common good	++	++





# you have to understand and clarify incentives before you can align them

- the adage “*follow the money*” can be generalized:  
“*follow the motivation*” or “*follow the personal incentives*”  
  
also make sure to “*follow the anxieties*”



# understand and clarify technology-related incentives related to *adoption or non-adoption*

	Clinician	Manager
Personal focused		
financial	++	++
stature among peers	++++	++
academic advancement		
Patient focused		
outcome		+++
gratitude		+
System / institutional		
financial strength	+	++++
clinical performance	+	+++
institutional leadership	+++	+++
business development	+++	+++

**ADOPTION**





# understand and clarify technology-related incentives related to *adoption or non-adoption*

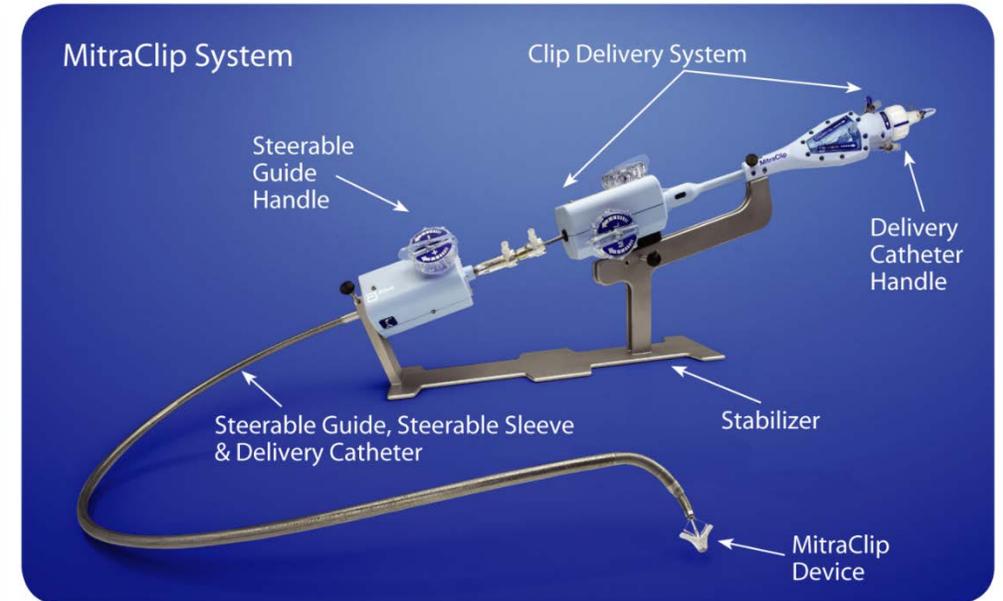
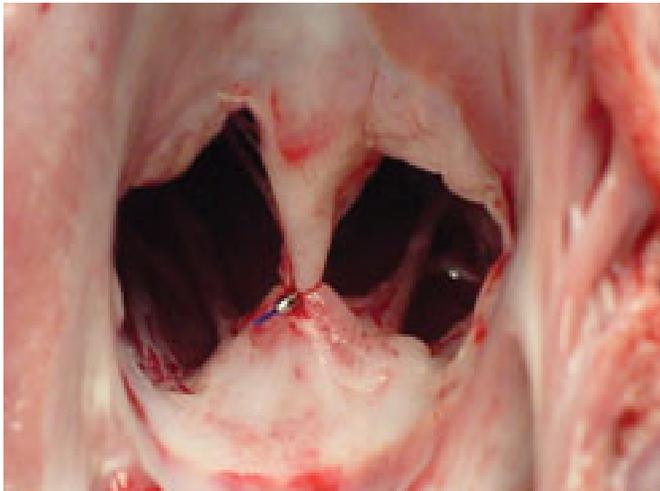
	Clinician	Manager
Personal focused		
financial	++	
stature among peers	++++	
academic advancement		
Patient focused		
outcome		+++
gratitude		+
System focused		
financial	+	++++
clinical metrics	+	+++
institutional leadership role	+++	+++
business development	+++	+++

**NON-ADOPTION**



# MitraClip™ - percutaneous mitral valve repair

'Alfieri' (edge to edge) repair



the clip itself, and the steering / delivery system that allows three-dimensional alignment



# MitraClip™ - percutaneous mitral valve repair

- High clinical need
  - medical treatment of severe symptomatic mitral regurgitation (MR) is often inadequate
  - major consequence is heart failure
  - majority of high-risk patients do not get surgical treatment despite severe symptoms
- Moderate clinical evidence
  - pivotal RCT (against surgery) performed 10 years ago targeted lower risk patients
  - ongoing RCT in high-risk patients
  - extensive observational data suggests low procedural risk and good symptom response in many
- High cost of device acquisition, balanced against short LOS and quick recovery
- Widespread uptake worldwide



## adoption / non-adoption of MitraClip: a tale of two hospitals

	Hospital A	Hospital B
Early experience (pivotal RCT)	Invited to join but backs out after initial cases due to frustration with early iteration device	Not invited to join pivotal RCT



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Provincial funding (initial phase)	Formulates plan to re-initiate use of device but not included in initial funding	Receives Ministry funding as per patient selection and facility criteria



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Post-licensure / pre-funding	Decides not to use device due to competing priorities	Expands program using primarily foundation funds
Provincial funding (initial phase)	Formulates plan to re-initiate use of device but not included in initial funding	Receives Ministry funding as per patient selection and facility criteria
Provincial funding (subsequent phase)	Uncertain . . . . will likely be funded for limited volume	Uncertain . . . . may see reduction due to redistribution of cases



# incentives related to *adoption* or *non-adoption* of MitraClip

	Clinician	Manager
<b>Personal focused</b>		
financial	?	?
stature among peers	?	?
<b>academic advancement</b>	<b>+++</b>	<b>+++</b>
<b>Patient focused</b>		
<b>unmet need</b>	<b>++++</b>	<b>++++</b>
<b>outcome</b>	<b>?</b>	<b>?</b>
gratitude	?	?
<b>System / institution focused</b>		
<b>financial stewardship</b>	<b>+++</b>	<b>++++</b>
clinical performance metrics	?	?
<b>institutional leadership role</b>	<b>++++</b>	<b>++++</b>
<b>business development</b>	<b>+++</b>	<b>+++</b>



## key factors helping to align technology-related incentives

- embedded within a strategic plan supported by clinicians and management
- consistent with the priorities of that plan
- agreement regarding importance of the unmet clinical need
- acknowledgment of some disagreement on other values of the technology
- “tangential shared benefits” – eg developing a non-surgical technology actually increases referrals to the surgical program



# key factors helping to align technology-related incentives

- embedded within a strategic plan supported by clinicians and management
  - consistent with the priorities of the organization
  - agreed upon by all stakeholders
  - acknowledged the benefits and risks of the technology
  - “targeted” incentives that align with the organization’s strategic priorities
  - acted on the evidence base
- Hospital A’s decision to NOT adopt MitraClip may have been equally consistent with their strategic priorities.
  - Despite being different from hospital B’s decision, it may still have been internally consistent given the early and inconclusive evidence base



## summary

- clinicians and managers may value similar outcomes but experience and measure those outcomes differently
  - recognizing this may mitigate tensions around apparently distinct values
- there are different incentives for clinicians and managers associated with adoption or non-adoption of a particular technology; some may align and some may not
  - alignment on a subset of major factors is probably essential for a “good” decision
- there may be value in an adversarial *structure* for the decision making process, but the personal interactions cannot be adversarial

