

Lumbal Spondylodese

Symposium 21/3/2011

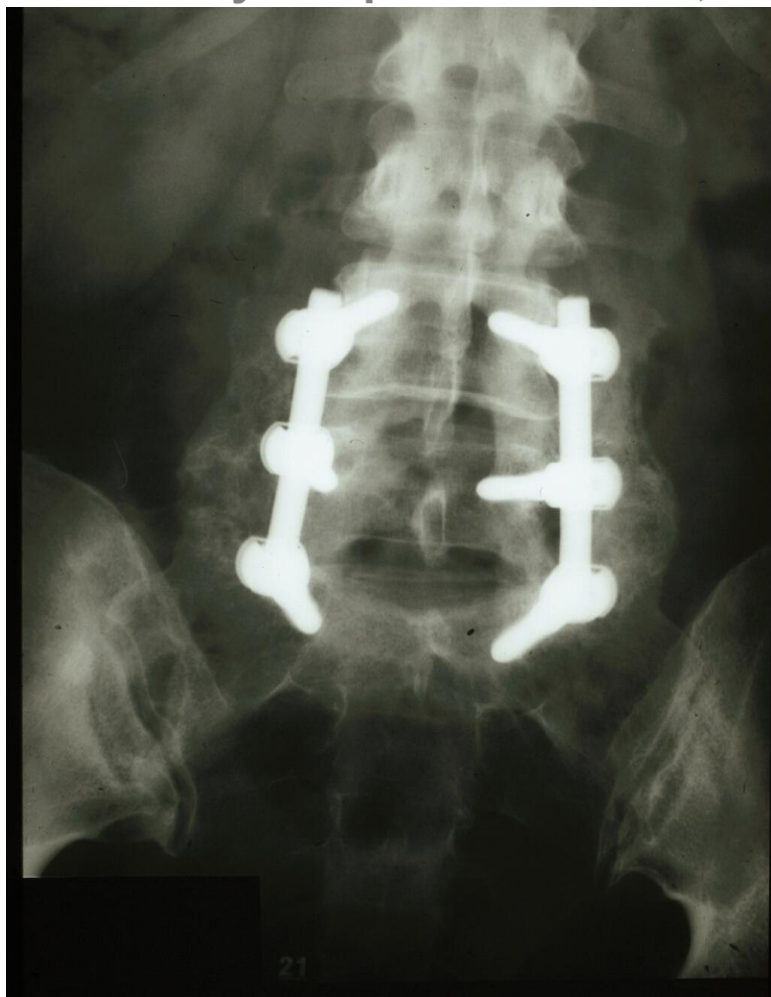
Lumbal Spondylodese

Indikationer

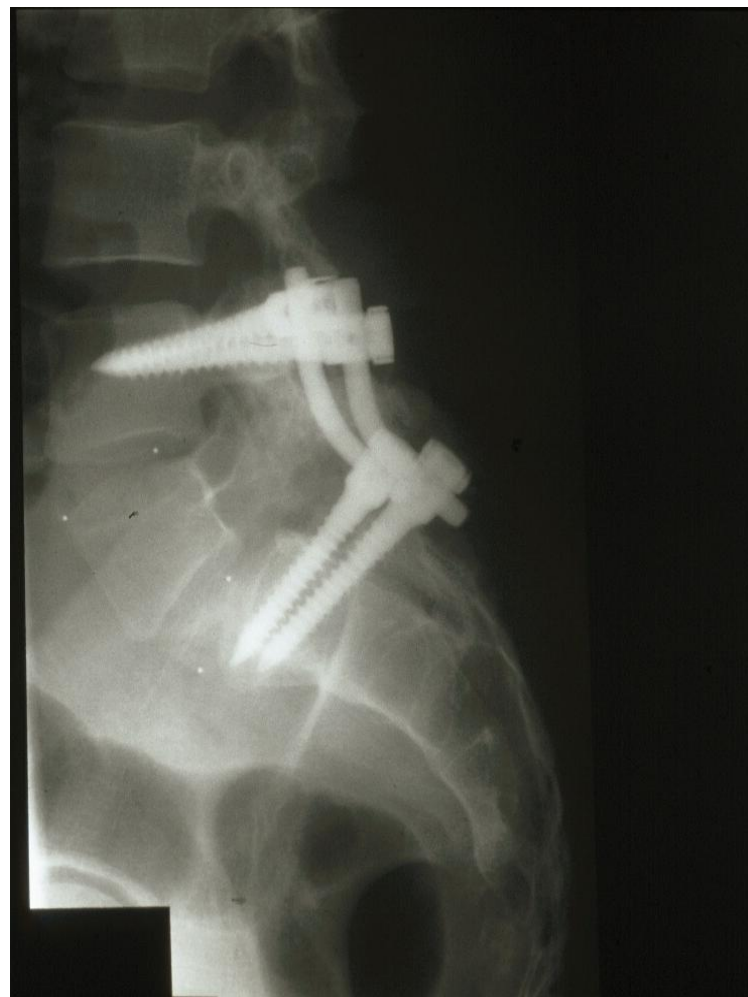
- Spondylolisthese
- DDD/spondylose
- Postdiscectomi syndrom
- Fraktursequelae
- Skoliose
- Spinalstenose

Udredning. Effekt af konditionstræning. Mekaniske versus neurogene smerter. (Rtg, Dynamisk Rtg, MR, Livskvalitets/smerte-score) **Obs red flags**

Randomized prospective Study in 148 pat. 1996 – 2000
University Hospital of Aarhus, Denmark.



CDI + autograft



**Brantigan ALIF +
autograft**

.- Spine 2002, 2006, 2007, 2010

CONSENSUS BASED
MEDICIN

VERSUS

EVIDENCED BASED
MEDICIN

The background of the slide is a solid blue color. In the lower right quadrant, there are several faint, concentric circles that resemble ripples in water, creating a decorative effect.

Clinical studies not necessary for CE marking

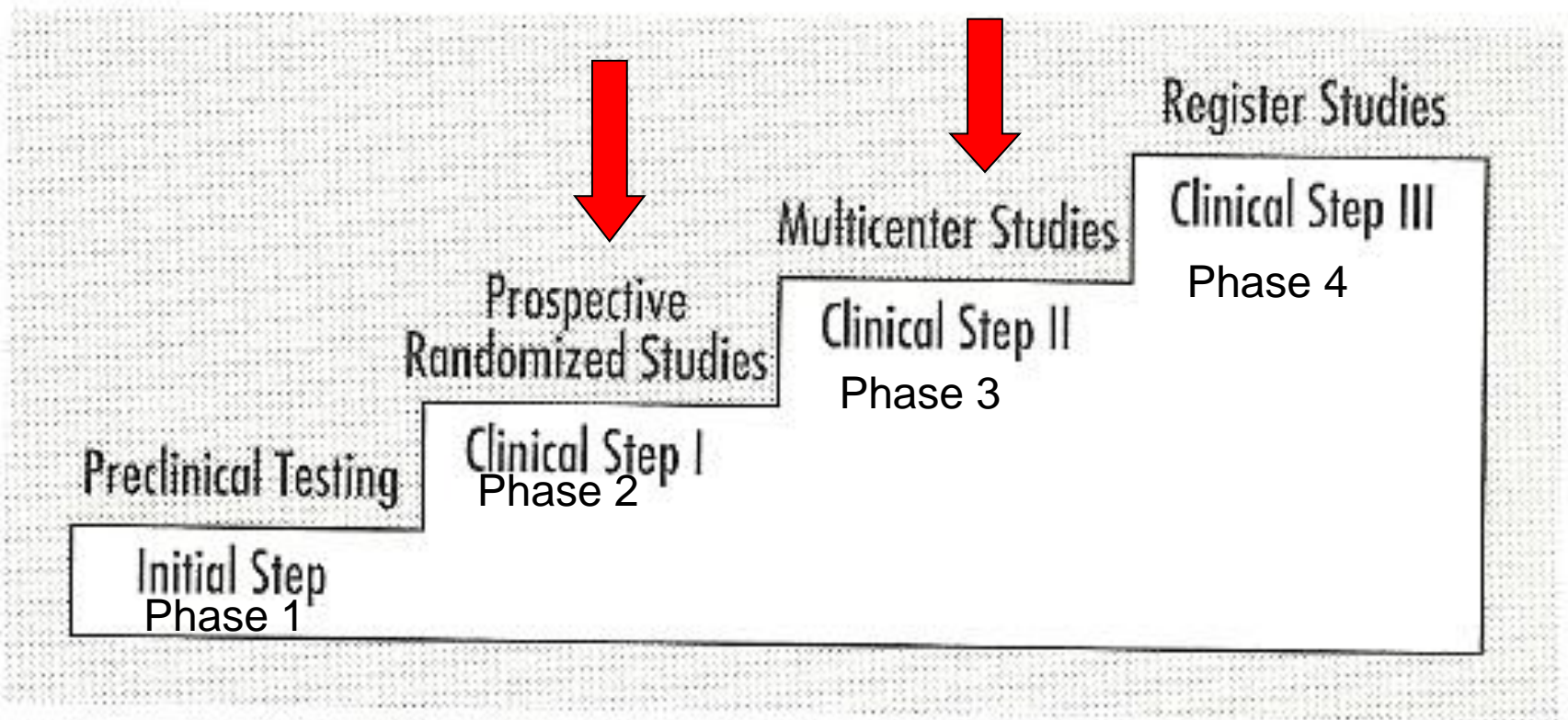
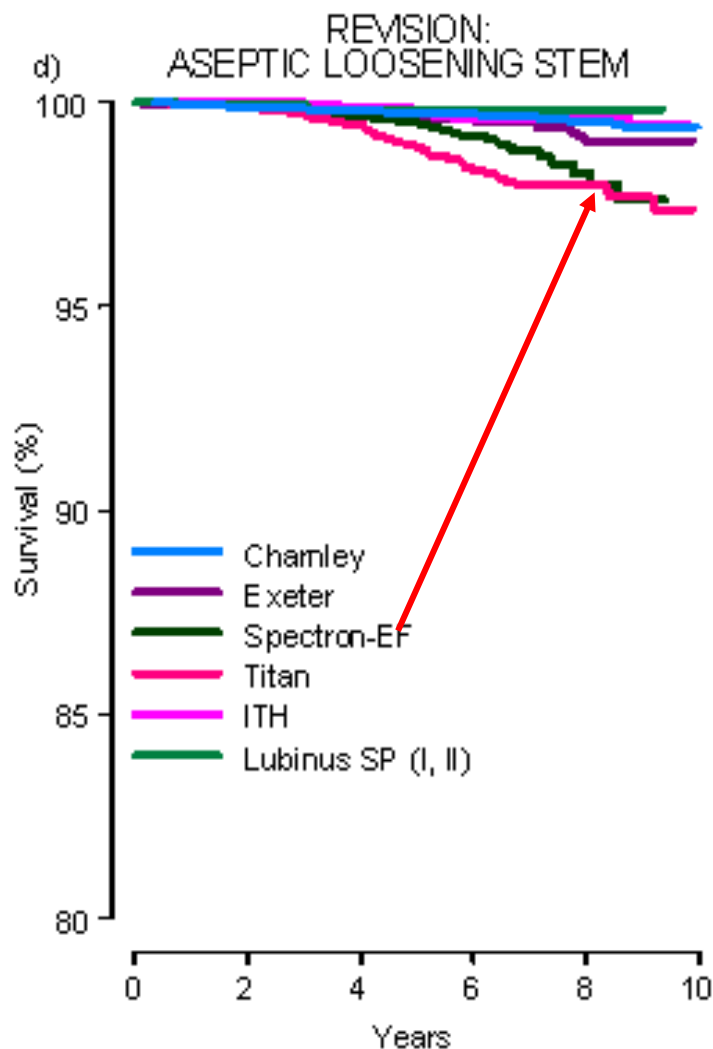
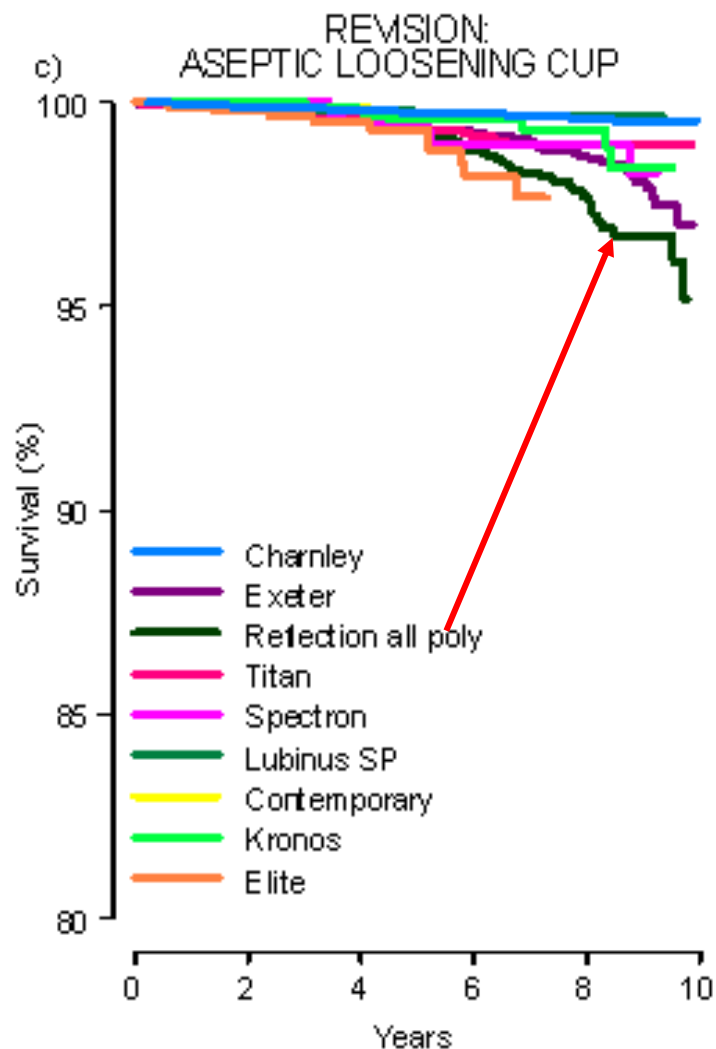


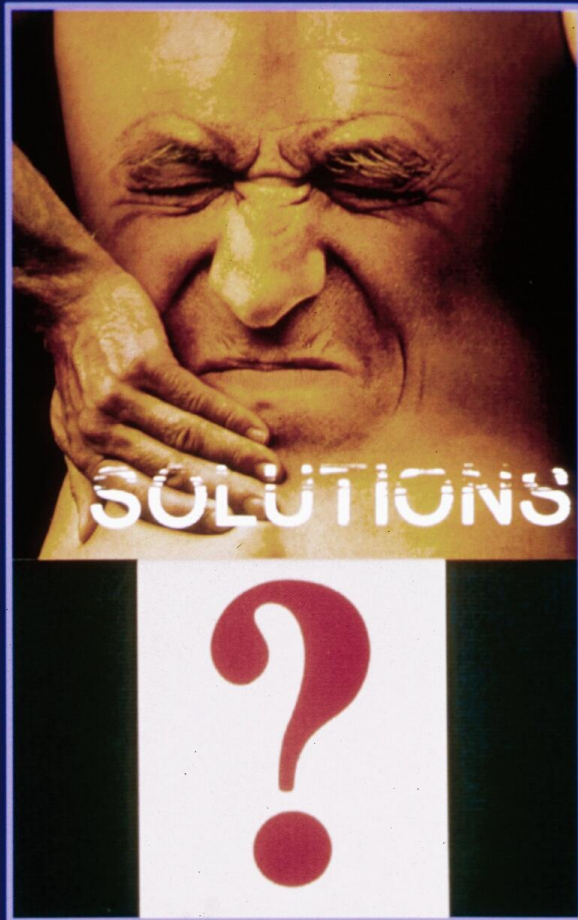
Figure 36: Algorithm for the stepwise introduction of new implants into clinical praxis.

Cemented THA 1997-2007



Chronic Low Back Pain

Conservative treatment ?

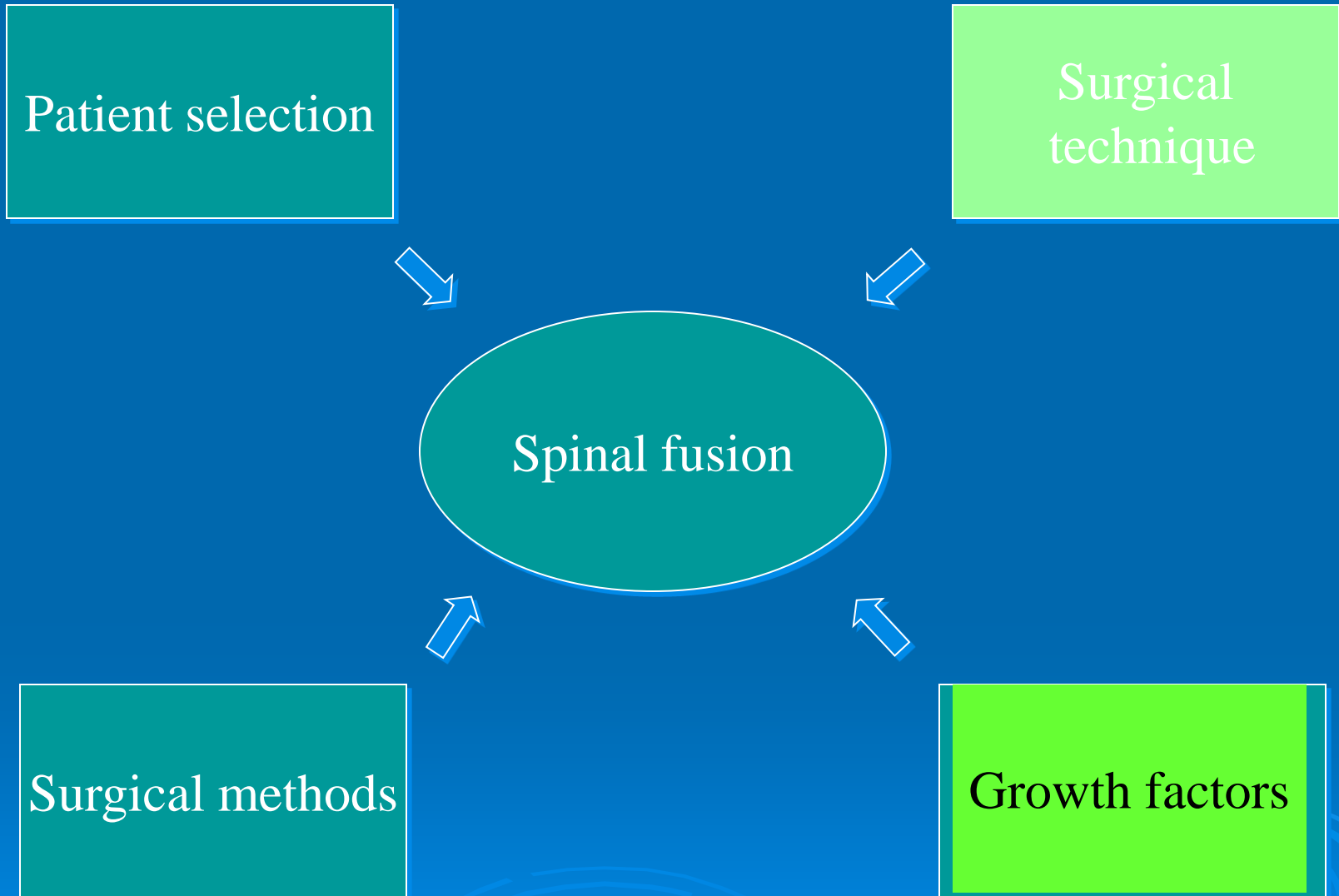


Surgery ?

Surgical options:

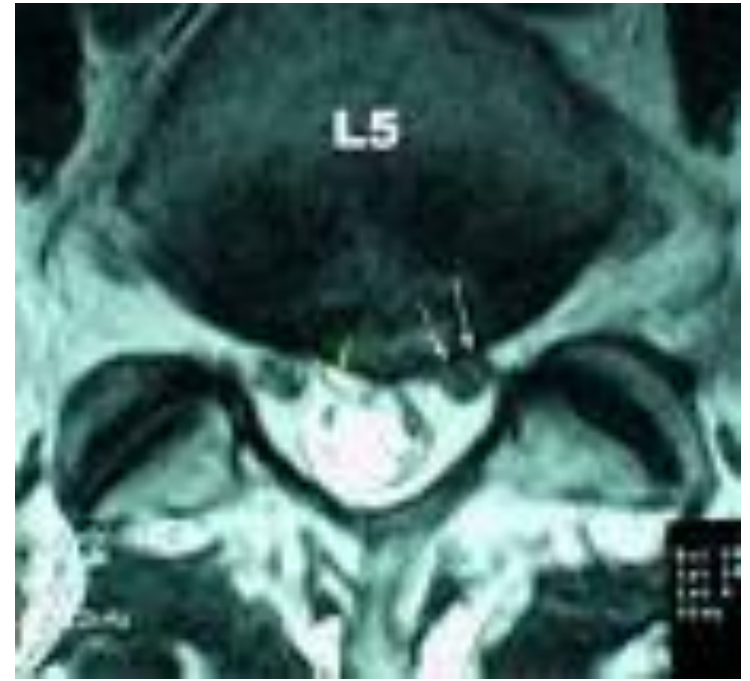
- Disc surgery
- Decompression
- Disc arthroplasty
- Total disc prosthesis
- Flexible intervertebral stabil.
- Fusion

Elements in Surgical Outcome








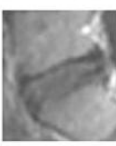
Regenerative Medicine

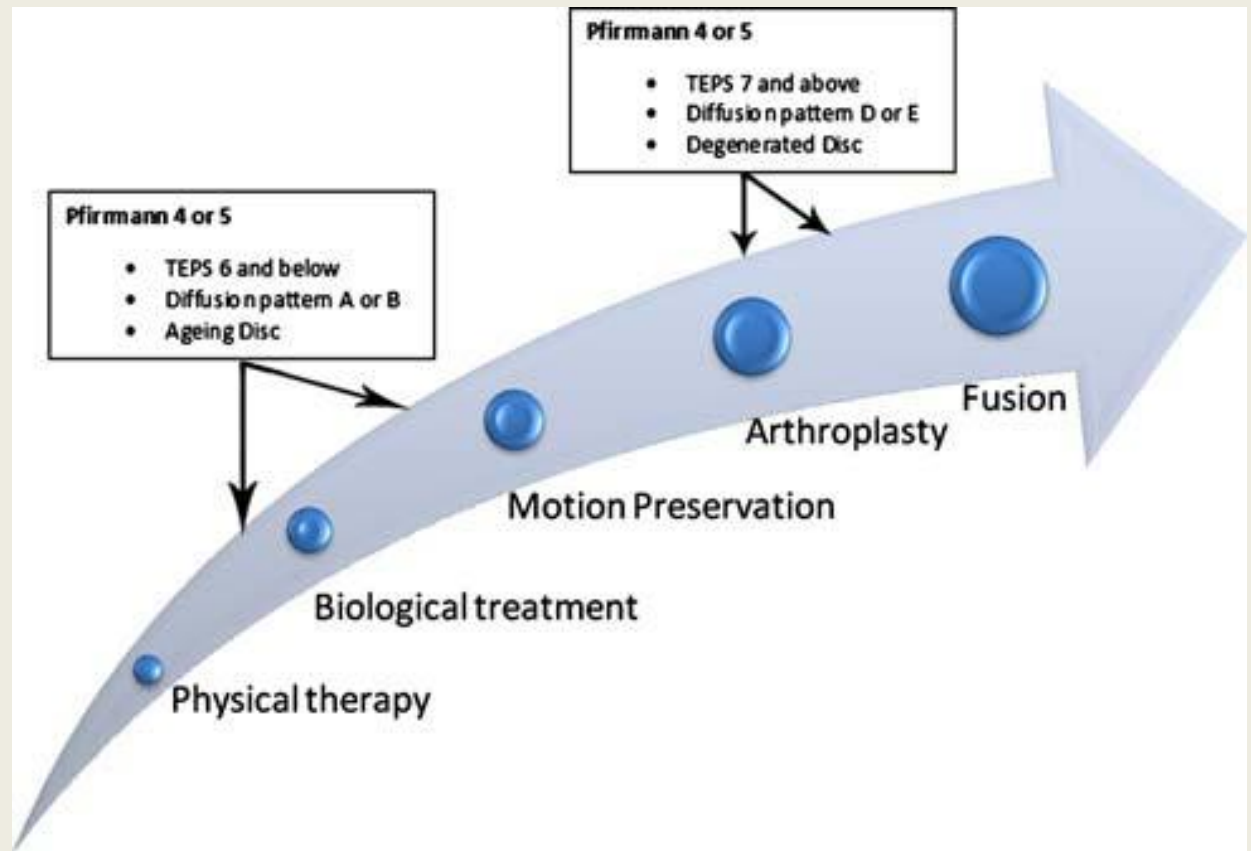
Degenerative Disc Disease (DDD)



MRI of the Lumbar Spine



Type	Image	Characteristics	End Plate S
I		<ul style="list-style-type: none"> No EP breaks or defects Uniform hypointense band Symmetrically concave Not associated with Modic changes 	1
II		<ul style="list-style-type: none"> Focal thinning of the EP No EP breaks No Modic changes 	2
III		<ul style="list-style-type: none"> Focal Disc Marrow Contacts Normal contour of EP maintained No Modic changes 	3
IV		<ul style="list-style-type: none"> Defect: up to 25% of width of EP Typical depression present Modic changes usually present 	4
V		<ul style="list-style-type: none"> Defect: up to 50% of width of EP Typical depression present Modic changes usually present 	5
VI		<ul style="list-style-type: none"> Complete EP damage Irregularity and sclerosis of EP Modic changes usually present 	6

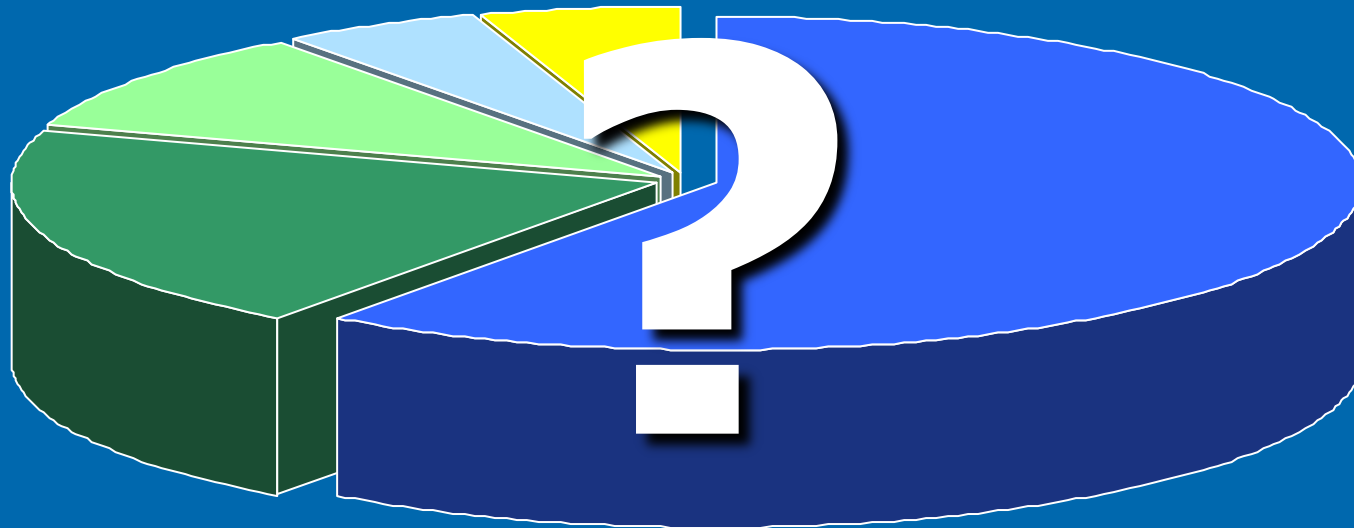


The spectrum of treatment available for symptomatic DDD by total endplate score (TEPS).

Rajasekaran S, et al. Eur Spine J. 2008



Costs of Orthopedic Disease



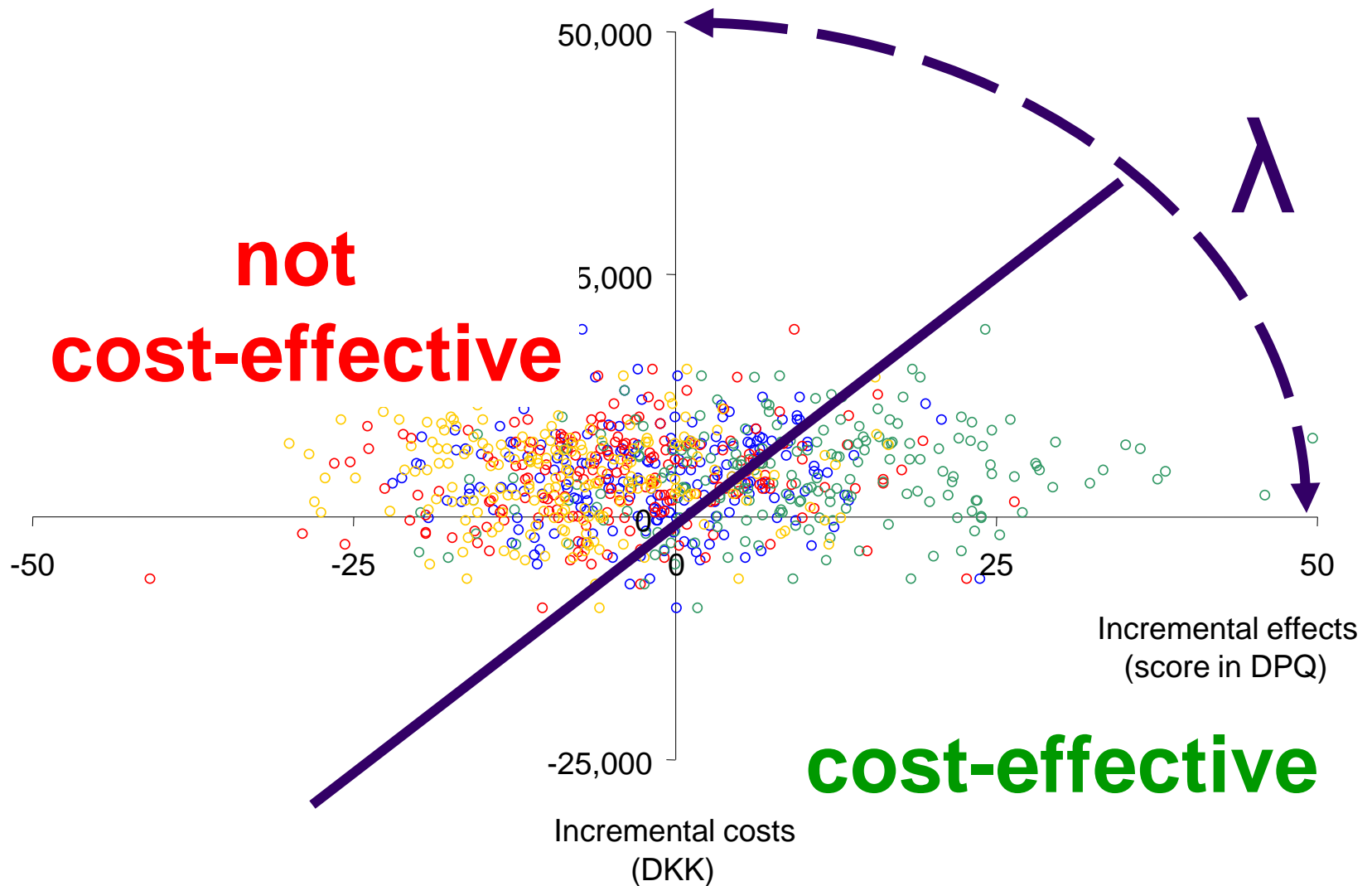
- **Production loss from absenteeism and disability**
- **Loss of health-related life-quality**
- **Diagnostics, treatment, care and rehabilitation**
- **Patient's 'out-of-pocket' costs**
- **Informal care**

Study Design in Economics



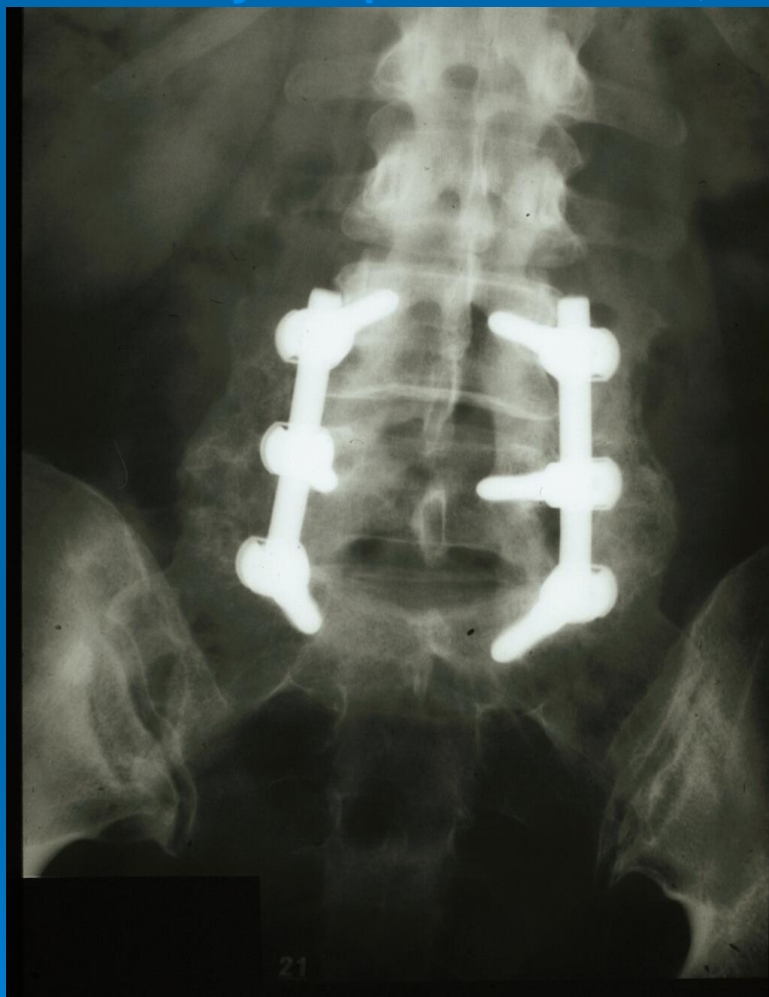
- Long term follow ups
- Outcomes measured by EQ-5D and converted into QALYs using weights of the general population (Dolan et al. 1996)
- Costs measured from a societal perspective and encompassed
 - **Service utilisation in primary care**
 - **Service utilisation in secondary care**
 - **Patients' costs**
 - **Productivity costs**

Incremental cost-effectiveness ratio

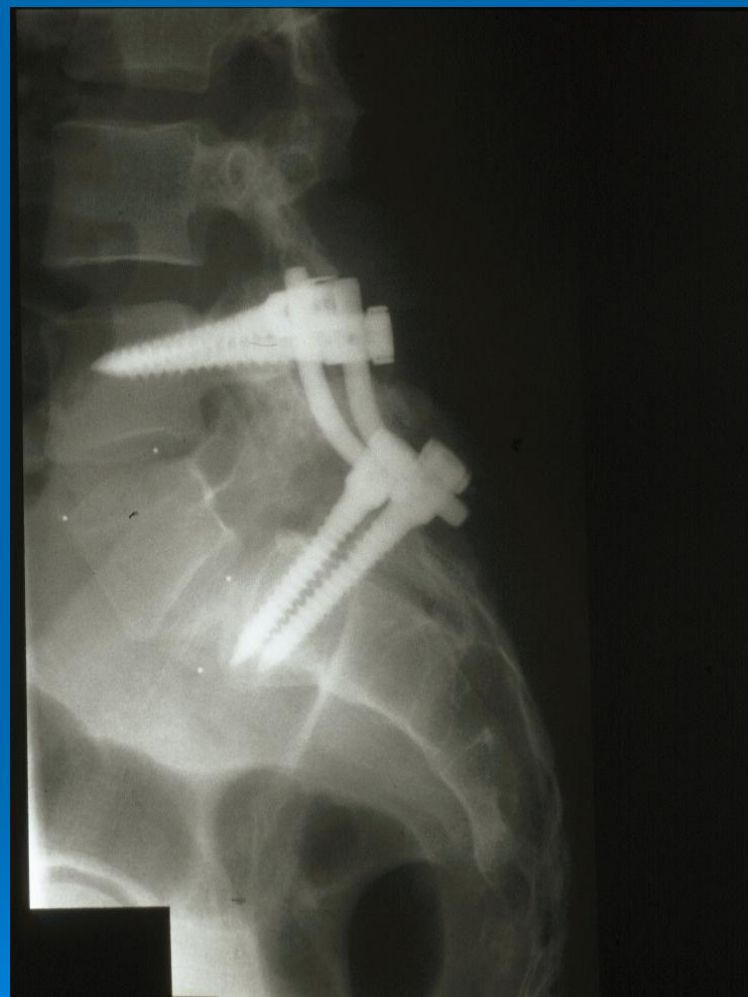


Randomized prospective Study in 148 pat. 1996 – 2000

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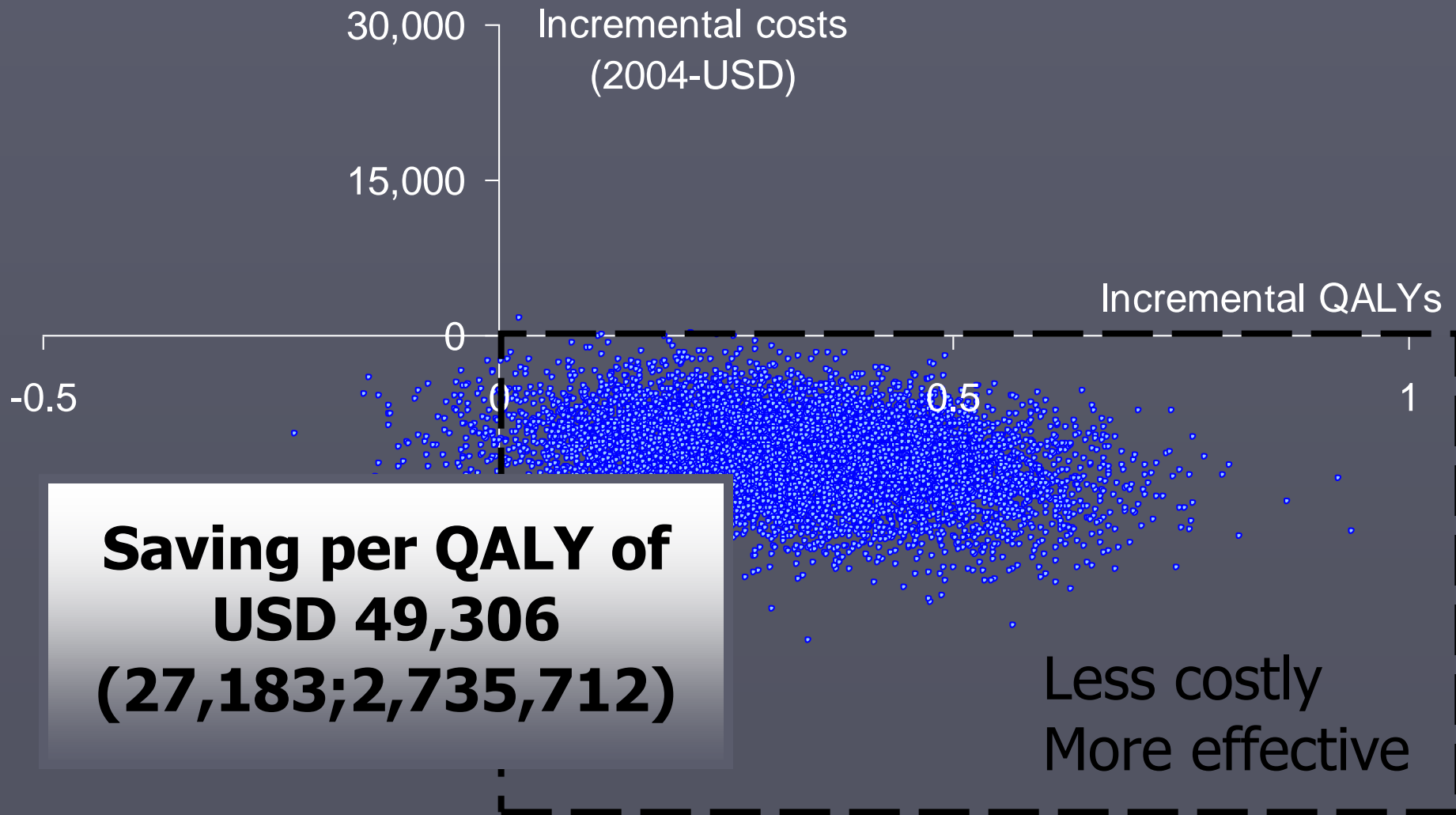
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- Spine 2002, 2006, 2007, 2010

Cost-effectiveness of circumferential versus posterolateral fusion

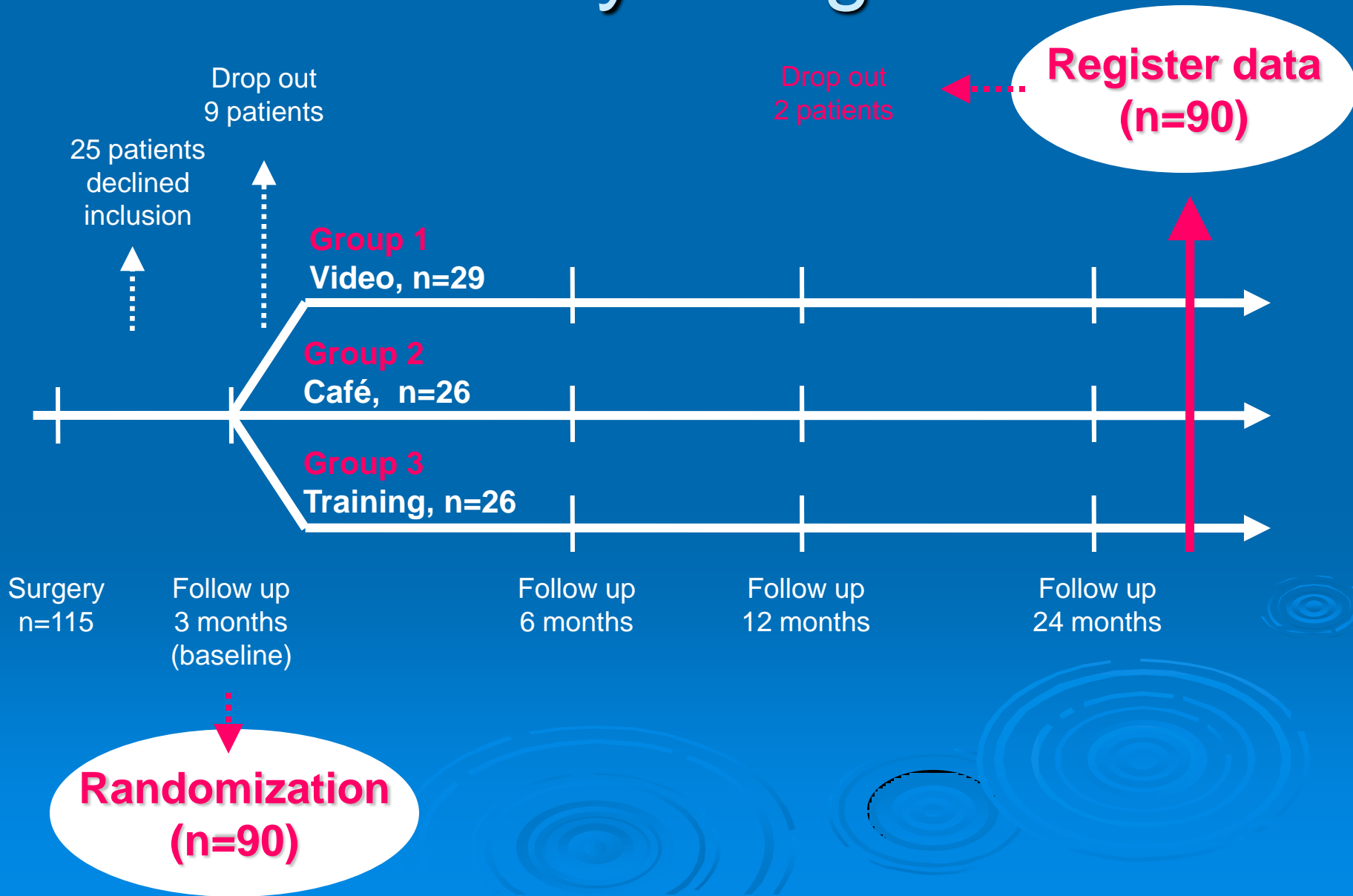


REHABILITATION

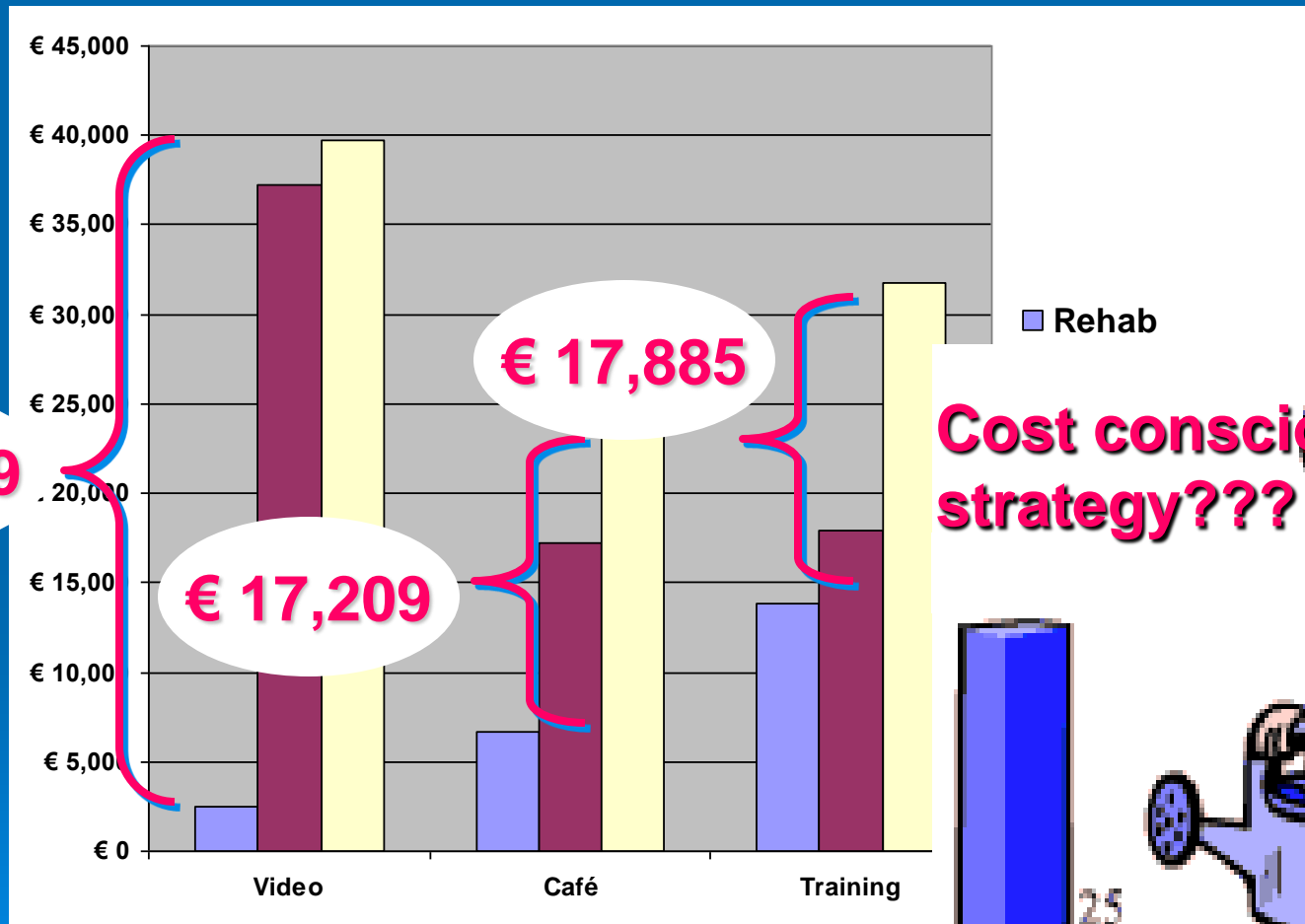
AFTER SPINAL FUSION



Study design



Cumulative costs 24 months postoperatively



**Cost conscious
strategy???**

