

EuroValve
January 26-27, 2017

Comprehensive Heart Valve Centres

www.eurovalvecongress.com



EuroValve

January 26-27, 2017

Faculty disclosure

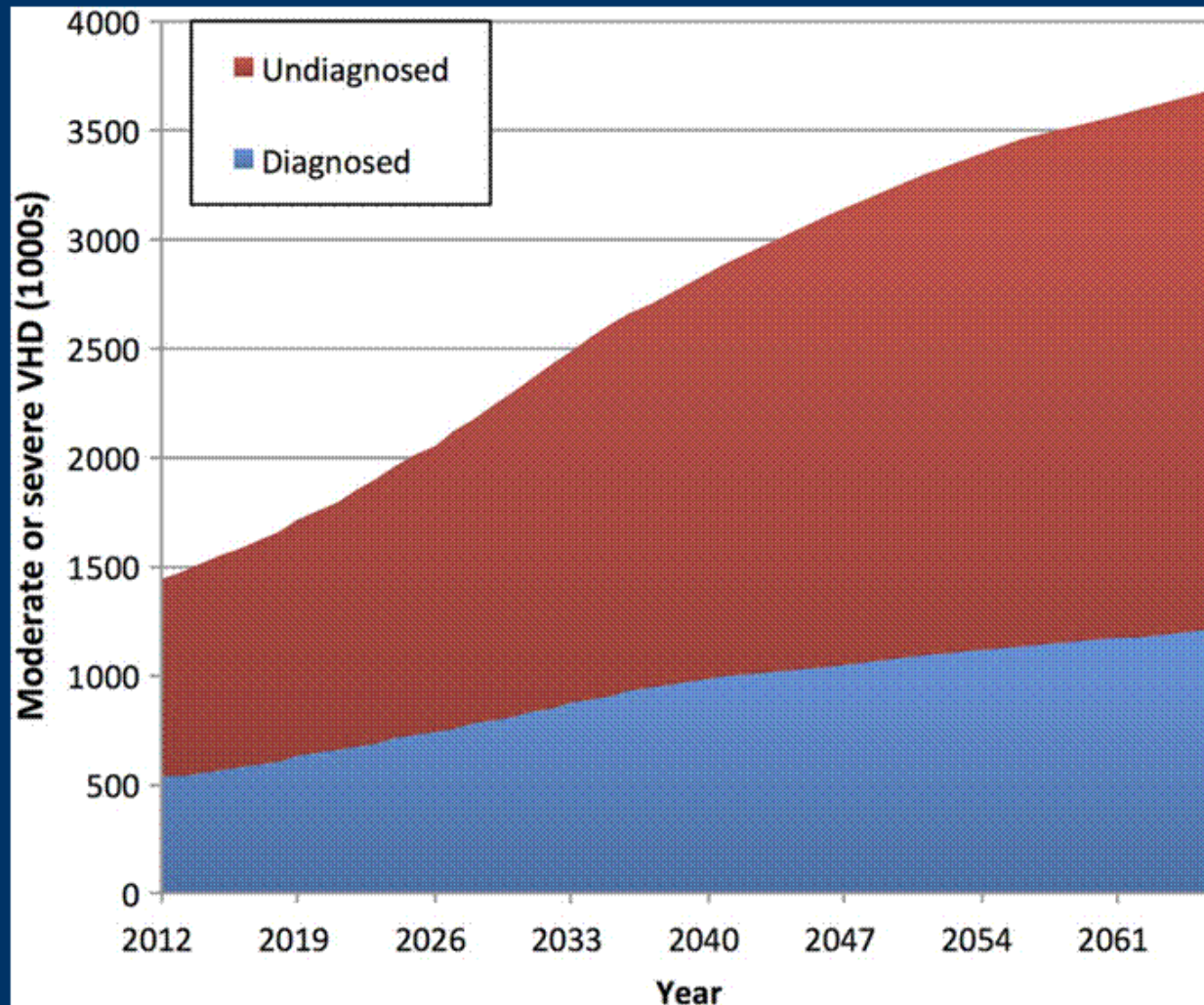
First name - last name

I disclose the following financial relationships:

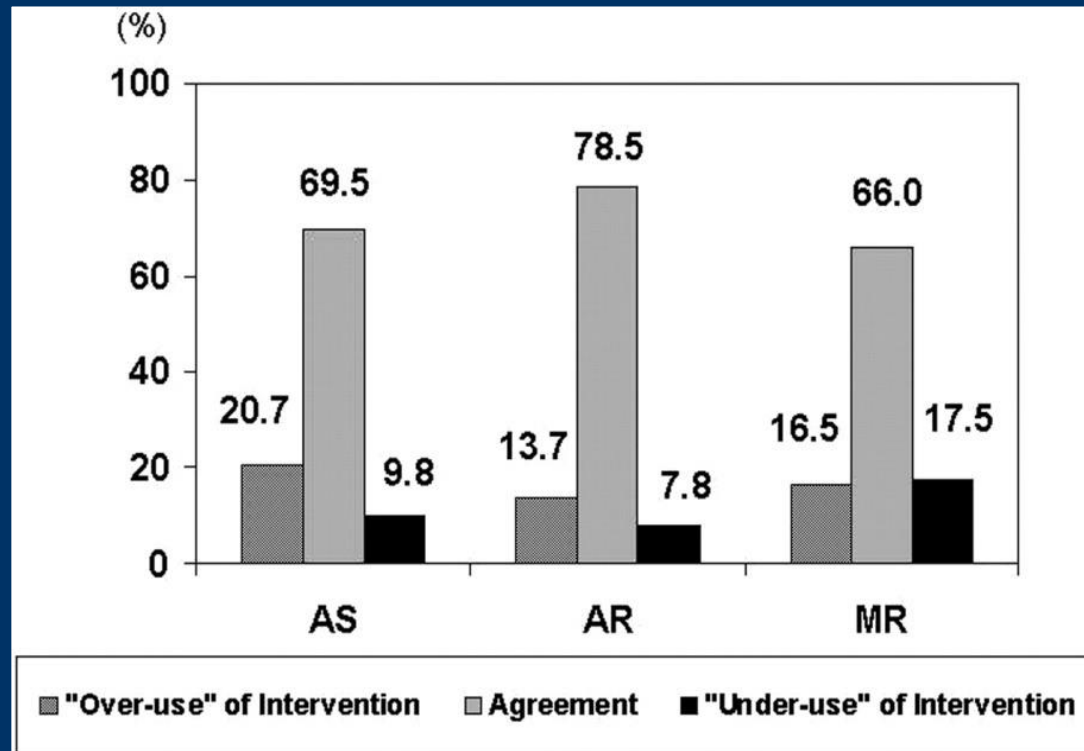
None relevant for this talk

www.eurovalvecongress.com

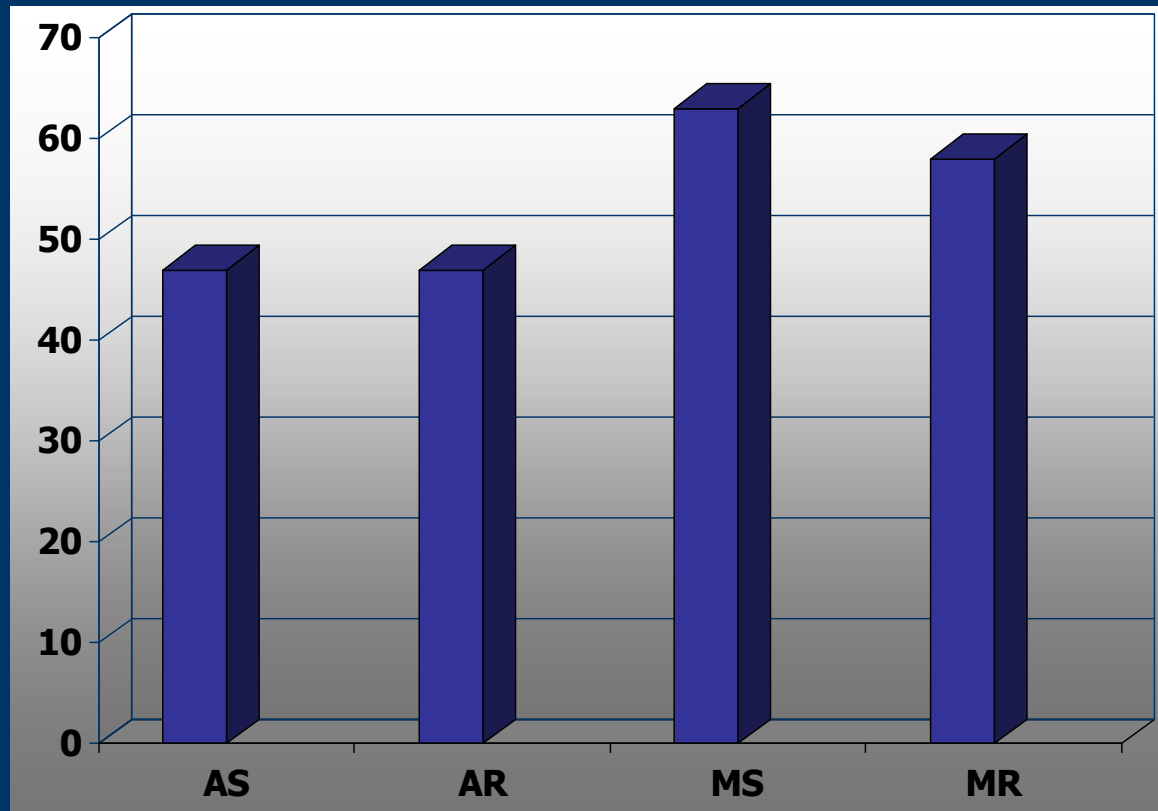
Valve disease becoming more common



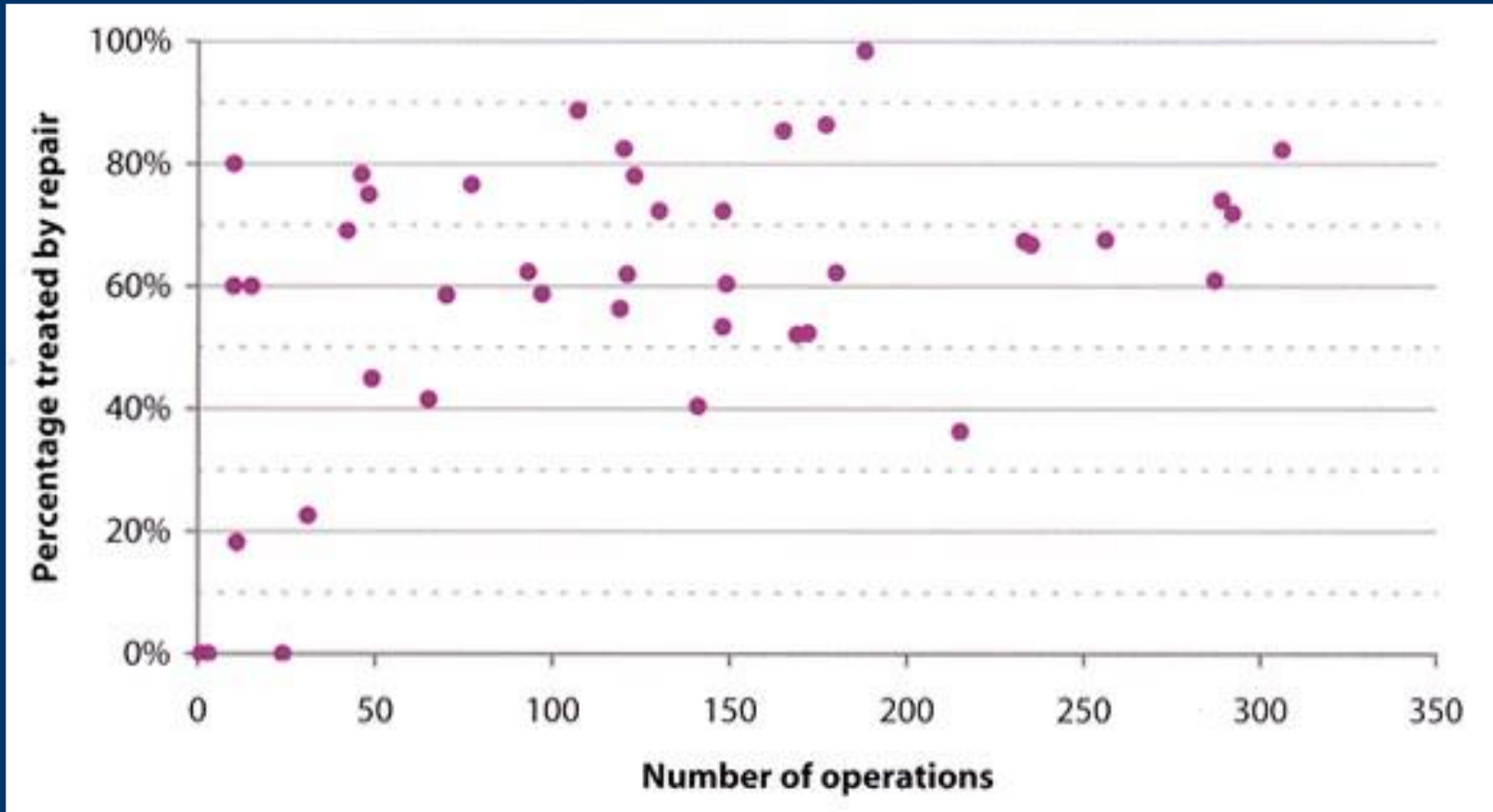
How often is surgery appropriate for asymptomatic valve disease?



Proportion of NYHA III/IV at surgery



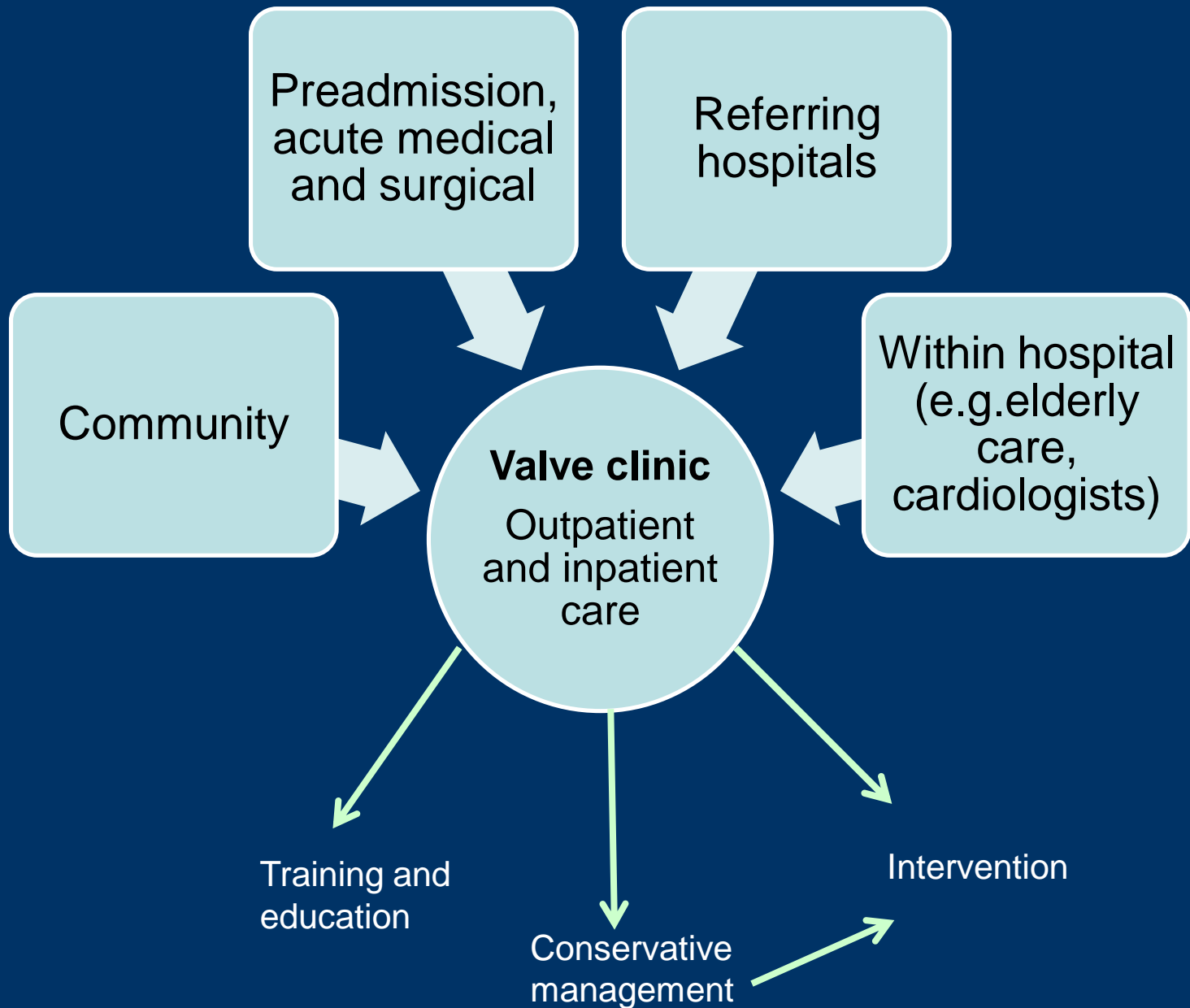
Single repair for degenerative disease (n = 5,163)



Components of a “Comprehensive Heart Valve Centre”

- Heart valve clinic
- Expert imaging
- Collaborative services
- Multidisciplinary heart teams
 - Mitral
 - Aortic and aortic valve
 - Endocarditis
- Processes and data review

ESC WG on valve disease and EACTS: J Chambers, B Prendergast, B Iung, R Rosenhek, JL Zamorano, LA Piérard, T Modine, V Falk, AP Kappetein, P Lancellotti



Interventional services

All centres

- Replacement valves in all 4 positions
- Root and ascending aortic replacement
- Mitral and tricuspid repair
- AF ablation
- Percutaneous: TAVI, paraprosthetic leak closure, mitral edge-to-edge repair

Some centres

- Aortic valve repair
- Ross
- Balloon mitral valvotomy

Multidisciplinary heart teams

- Surgeon, cardiologist, imager, anesthesiologist (+ others e.g. Geriatrician, microbiologist)
- Specialist competencies and experience
- Preop assignment to repair or replacement or transcatheter
- Detailed audit of results
- Adequate volumes (may reflect centre facilities, individual surgeon volumes)

Targets for surgical outcomes in repair of mitral prolapse

Mortality	<1%
Major complication	<2%
P2 repair rate	>90%
Significant regurgitation at 5 yrs	<5%
Reoperation for post repair p.a.	<1%
Reoperation for anterior repair p.a.	<2%

Bridgewater Heart 2006;92:939; Fedak Circulation 2008;117:963; David. JTCVS 2003;125:1143; Braunberger Circulation 2001;104 (SI):I-8

Recommended minimum annual numbers

	Centre	Operator
Mitral procedures	100	40
Aortic valve replacements	100	25
Aortic root	40	
TAVI	50	25
Mitral edge-to-edge	25	

Gammie Circulation 2007;115:881; Hughes JTCVS 2013;145:166; Bolling ATS 2010;90:1904; Kilic J TCVS 2013;146:638; Patel Ann Thorac Card 2013;96:1560

Collaborative services

- ITU and step-down. ECMO
- Cardiology: e.g. heart failure, EP
- Noncardiology: vascular and general surgery, neurology, nephrology, infection, stroke and elderly care, psychiatric care

Processes

- 24/7 cover allowing sickness and leave
- Beds / ITU capacity including emergency work
- Safety checks
- Training coordinated by national societies
- Data review and audit
- Involvement with national or international trials and registries

Data for collection

- **Preoperative:** demographic, comorbidities, grade of valve disease, risk assessment
- **Early results:** repair rates, death, morbidities, time on ITU
- **Hemodynamic:** gradients and EOA, residual regurgitation or PP regurgitation, SAM
- **Follow-up:** complications, mortality at 1, 3, and 5 yrs, redo surgery



Key points

- Comprehensive heart valve centres defined by:
 - Facilities and services
 - Volume of work
 - Comprehensive results open to audit
- Demonstrating excellent results more important than volume targets: audit