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CIHR IRSC

 Canadian Institutes of Health Research
Institut de recherche en santé du Canada



Key Enablers

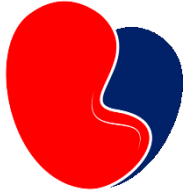
- Guidelines
- Professional organizations – CST Kidney Transplant Group
- The Pilot
- A platform to discuss and build collaboration
- Engagement of experts
- Ongoing knowledge dissemination
- Team ethos/ culture



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Guidelines defined the problem and gave us clout



AST 2001

- High-risk → stress test
- Diabetes
- Prior IHD
- ≥ 2 traditional risk factors
- Positive test → angiography
- Critical lesions → revascularize
- *Am J Transplant* 2001;1:S3

KDOQI 2005

- Annual stress tests in wait-listed patients who have:
- Diabetes
- Prior IHD, PVD or $EF \leq 40\%$
- ≥ 2 traditional risk factors
- *Am J Kidney Dis* 2005;45:S1

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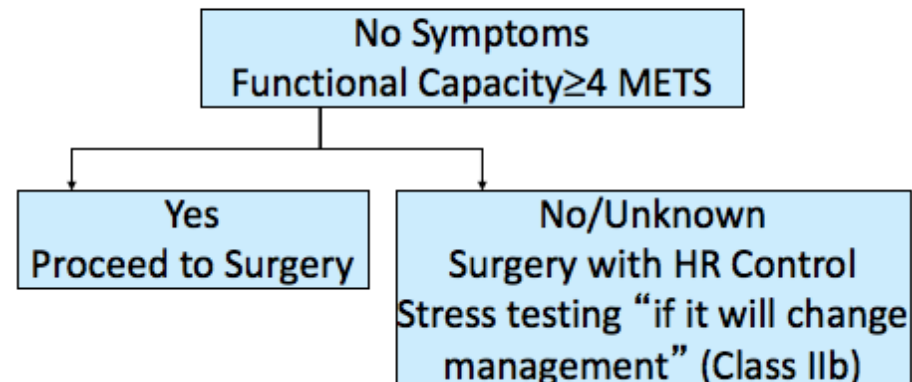
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AHA/ACC 2007

Intermediate Risk Surgery
 ≥ 1 Risk Factor



J Am Col Cardiol 2007;50:1707



Cardiac Disease Evaluation and Management Among Kidney and Liver Transplantation Candidates

A Scientific Statement From the American Heart Association and the American College of Cardiology Foundation

*Endorsed by the American Society of Transplant Surgeons,
American Society of Transplantation, and National Kidney Foundation*

Krista L. Lentine, MD, MS, Co-Chair; Salvatore P. Costa, MD, Co-Chair;
Matthew R. Weir, MD, FAHA; John F. Robb, MD, FAHA; Lee A. Fleisher, MD, FAHA;
Bertram L. Kasiske, MD; Robert L. Carithers, MD; Michael Ragosta, MD; Kline Bolton, MD;
Andrew D. Auerbach, MD; Kim A. Eagle, MD, FAHA, Chair; on behalf of the American Heart Association Council on the Kidney in Cardiovascular Disease and Council on Peripheral Vascular Disease

JACC Vol. 60, No. 5, 2012

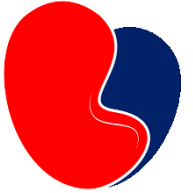
July 31, 2012:434–80



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CST Kidney Transplant Group – allowed us to survey community

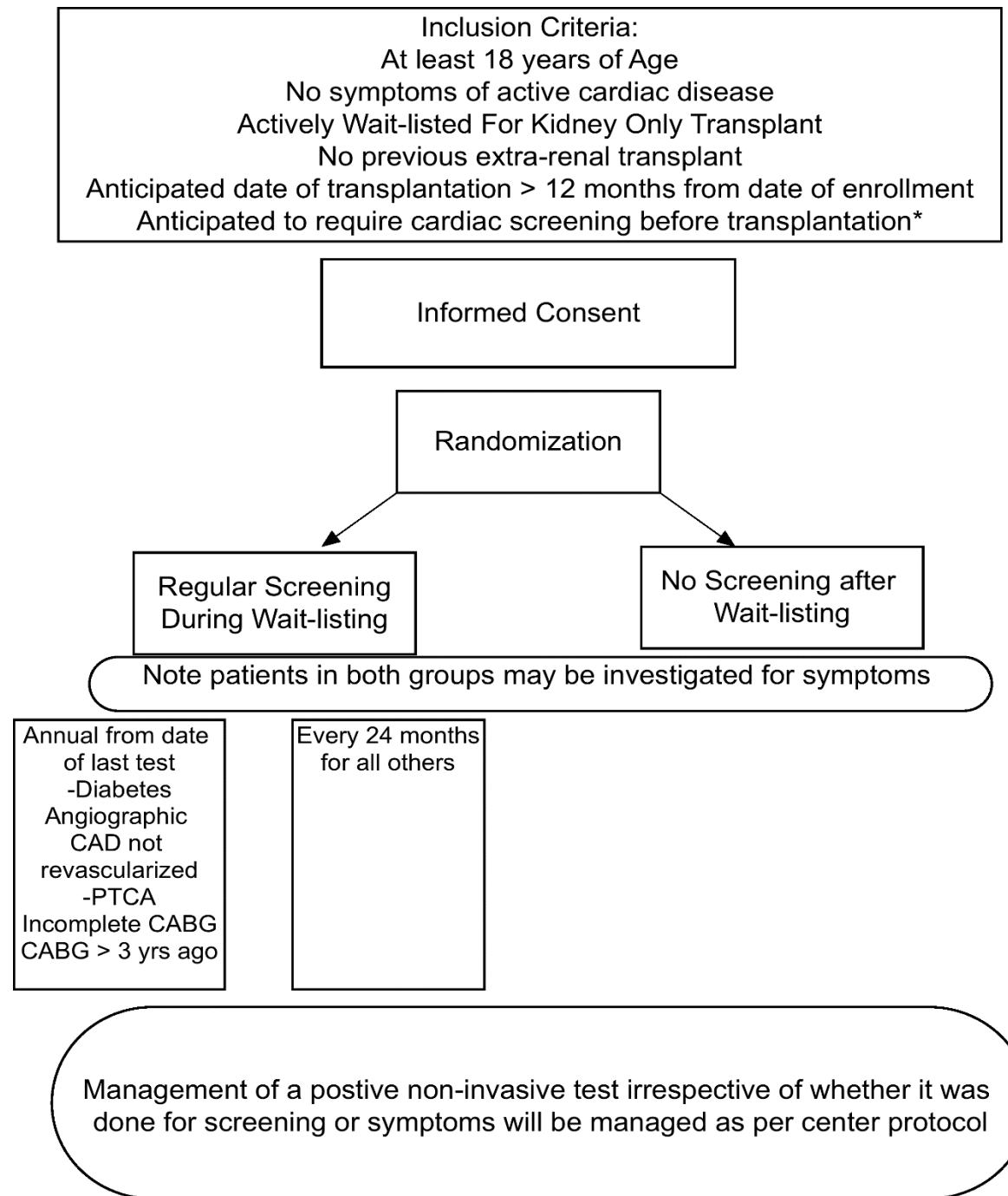
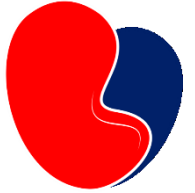


- Current clinical practice variation
- Willingness to enroll in trial
- Informed study design



Hypothesis

- After screening for wait list entry, non use of cardiac screening tests is non-inferior versus the current standard care, which is screening all asymptomatic wait-listed patients for coronary artery disease (CAD) at regular intervals
- Centres were not willing to forgo screening prior to wait-listing



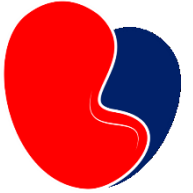


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CARSK Funding History

- 2014 Canadian Pilot: Feasibility n =144, 2 years follow up
 - John Gill, Greg Knoll, PJ Devereux
 - Sites: Vancouver (Gill), Ottawa (Knoll), Hamilton, Toronto (Joe Kim), Montreal (Cantarovich)
- Pilot acted as a Vanguard – patients rolled over into definitive CARSK trial



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Platforms (aka bars)



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 - John Gill, Greg Knoll, PJ Devereux
 - Sites: Vancouver (Gill), Ottawa (Knoll), Hamilton, Toronto (Joe Kim), Montreal (Cantarovich)
- 2015 Australia/ New Zealand - Funded for definitive trial
 - Chadban/ Pilmore
 - N=1100 4 years follow up
- 2018 CARSK - Funded in Canada
 - Jag Gill, Scott Klarenbach, Joe Kim
 - John Gill, Greg Knoll, PJ Devereaux – Awarded Foundation Grants
 - John Gill Foundation Grant – supporting pilot and pilot patient continuation in CARSK
 - N= 2200 5 years follow up



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Willingness of “heavy hitters” to engage

- Cardiology – Chuck Herzog
- Trials – PJ Devereux
- DSMB – Andreas Laupacis
- Economics – Rachael Morton

STEERING COMMITTEE MEMBERS

- Dr Steven Chadban, Australia
- Dr Tracey Ying, Australia
- Dr Angela Webster, Australia
- Dr Charles Herzog, USA
- Dr Greg Knoll, Canada
- Dr S Joseph Kim, Canada
- Dr Jagbir S Gill, Canada
- Dr John S Gill, Canada

CLINICAL EVENTS ADJUDICATION COMMITTEE MEMBERS

- **Chair:** Dr Charles Herzog, USA
- Dr Mengistu Simegn, USA
- Dr Michelle Carlson, USA
- Dr Chris DeFilippi, USA
- Dr Yader Sandoval, USA
- Dr Allyson Hart, USA
- Dr James Wetmore, USA
- Dr Scott Kasner, USA
- Dr Steven Messe, USA

DATA AND SAFETY MONITORING BOARD MEMBERS

- **Chair:** Dr Andreas Laupaucis, Canada
- Dr Timothy Ramsay, Canada
- Mr Andrew Day, Canada
- Dr Brenda Hemmelgarn, Canada
- Dr Anushka Patel, Australia
- Dr Matthew Jose, Australia



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Team Ethos/ Culture

- Horizontal not vertical
- In it for the patients/science



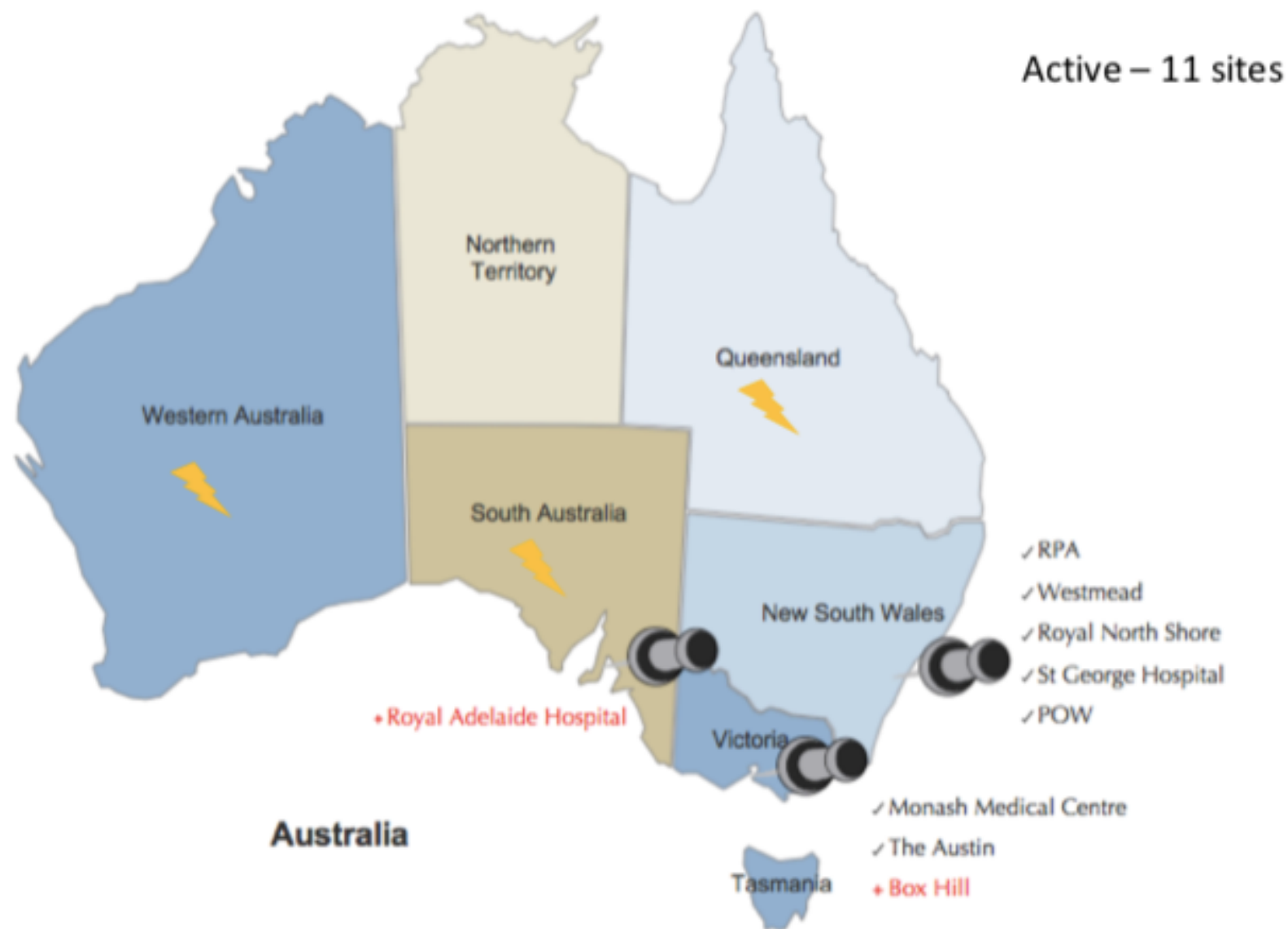
The moral peril of meritocracy



Status

- 569 patients randomized

CARSK RECRUITMENT SITES – AUSTRALIA AND NEW ZEALAND



CARSK RECRUITMENT SITES - CANADA

2 sites active
4 more expected within a month



CARSK in Europe

- Barcelona - Edoardo Melilli,
Hospital Universitari de Bellvitge
- Berlin – Klemens Budde, Charité



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KT baby !

- Website CARSK.org
- Publications:
 - CJASN – How I treat series Jan/2019
 - <https://cjasn.asnjournals.org/content/14/1/112>
 - Trial Protocol – at revision stage - *The American Heart Journal*
 - Stopping rules in non-inferiority trials/ invited submission to *Transplantation*
 - Economic model – submitted to *Kidney International*
 - Pilot trial results to be submitted