

**Medical Outcomes following
Cardiac Arrest (MOCA)
An OPALS sub-study**

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THE ISSUE

- 40,000 SCD/Canada per year
- Only 5% of people survive SCD

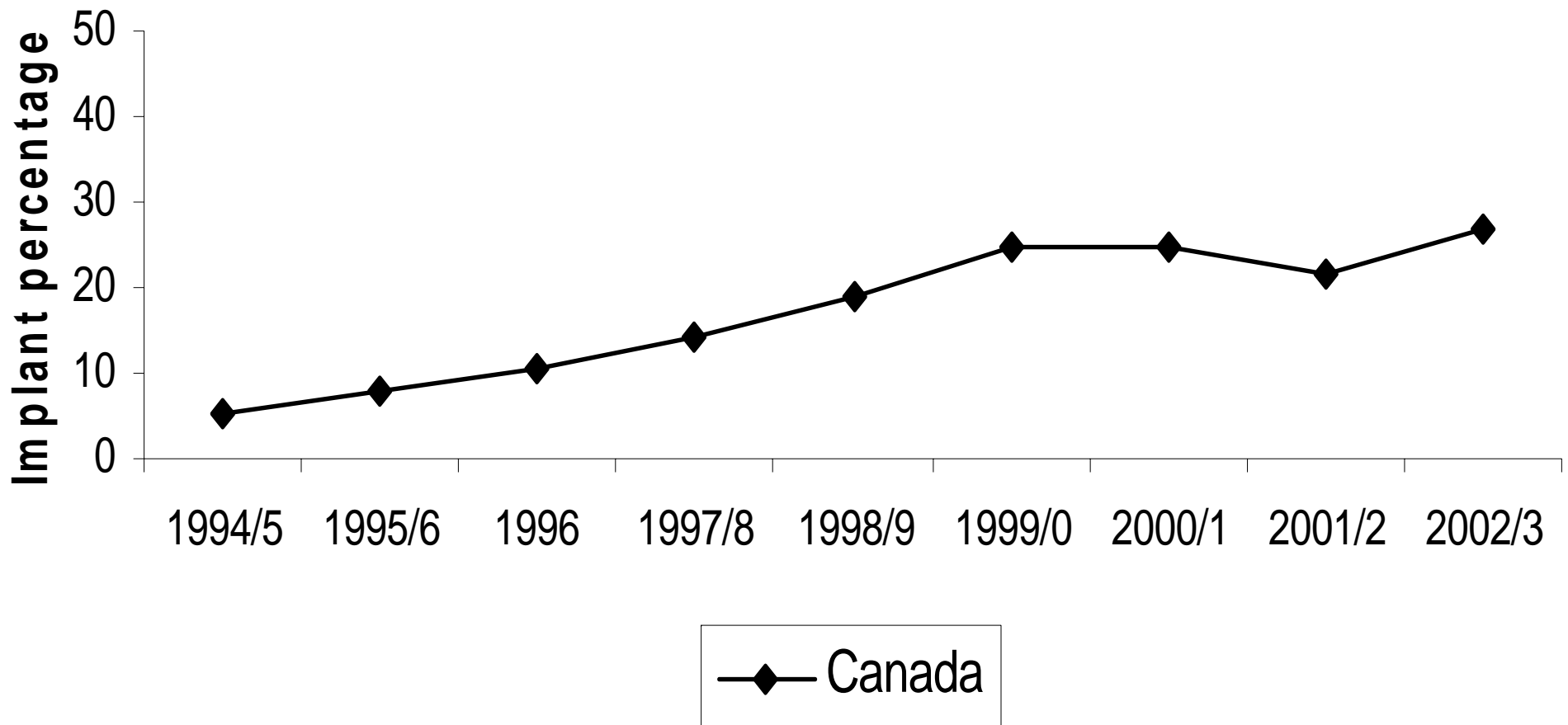
THE SOLUTION

- Implantable Cardioverter Defibrillators
- Clear evidence that they reduce mortality following SCD (by 39% at one year)
- Patients unlikely to get a second chance (Survivors have a risk of recurrent SCD between 12 and 30% in the year after discharge)

Baseline demographics of 3793 Canadian patients admitted with CA and surviving to hospital discharge, stratified by gender

	Males	Females	Total	P value (males v females)
Number	2482	1311	3793	
Age (mean \pm SD)	64.3 (15.5)	65.8 (17.6)	64.9 (16.2)	ns
Liver Failure %	0.9	0.6	0.8	ns
Renal Failure %	7.8	7.6	7.7	ns
Heart Failure %	28.3	27.2	27.9	ns
Acute Myocardial Ischemia %	4.7	3.2	4.2	0.0273
Neurologic Failure %	13.5	11.1	12.6	0.0409
Neoplasm %	2.7	2.4	2.6	ns
Admission hospital (% teaching)	31.2	25.5	29.2	0.0002
Admission hospital (% with greater than 100 beds)	89.9	86.1	88.6	0.0004
Community (% urban)	81.3	77.7	80.0	0.0095

ICD Implant Rates following OOHCA



Results

Odds Ratios for predictors of ICD Implantation in OOHCA hospital survivors in Canada, 1994/95 to 2002/03. All other variables in the model (including presence of acute myocardial ischemia) were not predictive.

Significant Independent Predictors	Odds Ratio	95% Confidence Limits
Admitting hospital = teaching <u>cf</u> non teaching	2.87	2.35, 3.51
Admitting hospital size > 100 beds	2.60	1.52, 4.46
Male	1.95	1.57, 2.42
Heart Failure	1.73	1.42, 2.12
Year (by 1 year increments)	1.24	1.19, 1.28
Age (by 10 year increments)	0.76	0.72, 0.80
Renal Failure	0.47	0.32, 0.70
Liver failure	0.21	0.05, 0.95
Neoplasm	0.07	0.01, 0.49

THE PROBLEM

- Patients with THE ISSUE (risk of recurrent SCD) are not receiving the SOLUTION (ICD implant)
- MOCA should tell us why not

Study Objectives

- 1. To determine prospectively the contemporary incidence of ICD implantation in survivors of SCD in Canada and US.
- 2. To determine the appropriate ICD implantation rate in survivors of SCD.
- 3. To define reasons for ICD implantation or non-implantation in survivors of SCD.

MOCA STATUS.....

Recruitment is Finished!!

MOCA Status

- Recruitment
 - Complete
- Patient telephone surveys
 - Complete
- US Chart Review
 - Complete
- Canadian Chart Review
 - (10 to do)
- Data Entry
 - Almost complete
- Data Analysis
 - starting
- Delphi Process
 - starting

Thanks

- For all your survivor consenting, chart reviewing and general hard work



Sudden death
is.....
..sudden and
serious!!