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Supplement Figure 3. Random-Effects Model Meta-analysis of ICD vs. No ICD for Arrhythmic Death
### Supplement Table 1. Search Strategy

**Databases:**

1) Ovid MEDLINE® 1948 to December Week 1 2012
2) Ovid MEDLINE® In-Process & Other Non-Indexed Citations November 30, 2012
3) EBM Reviews-Cochrane Central Register of Controlled Trials 4th Quarter 2012

**Search Terms:**

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<tr>
<th>#</th>
<th>Searches</th>
<th>Brief description of terms</th>
<th>Number of abstracts</th>
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<td>Terms related to device of interest</td>
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<td>(defibrillators and implantable).af.</td>
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<td>implantable defibrillators.af.</td>
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<td>(implantable and cardioverter and defibrillator).af.</td>
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<td>implantable cardioverter defibrillator.af.</td>
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<td>cardioverter defibrillators, implantable.af.</td>
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<td>(death, sudden, cardiac and cardiac pacing, artificial).af.</td>
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<td>9</td>
<td>randomized controlled trial.pt.</td>
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<td>Clinical Trials.mp. or exp Clinical Trials/</td>
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<td>((singl$ or doubl$ or trebl$ or tripl$) adj (mask$ or blind$)).tw.</td>
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<td>trial$tw.</td>
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<td>(latin adj square).tw.</td>
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<td>Follow-Up Studies/</td>
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<td>Cross-Over Studies/</td>
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<td>or/9-30</td>
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<td>32</td>
<td>8 and 31</td>
<td>Comparative ICD studies 5,503,700</td>
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<td>exp cohort studies/ or exp prospective studies/ or exp retrospective studies/ or exp epidemiologic studies/ or exp case-control studies/</td>
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<td>ep.fs. (epidemiology/floating subhead)</td>
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<td>37</td>
<td>or/33-36</td>
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<td>40</td>
<td>32 or 39</td>
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**NOTE:** The above search strategy was successfully tested against the major RCTs identified in the review by Passman R, Kadish A. Sudden death prevention with implantable devices. *Circulation* 2007:116:561-71; PMID: 17664385.
## Supplement Table 2. Study Characteristics

<table>
<thead>
<tr>
<th>Study Author Year</th>
<th>PMID Design</th>
<th>Intervention (Control)</th>
<th>Mean Age (%) Female</th>
<th>NYHA class</th>
<th>Ischemic</th>
<th>Non-ischemic</th>
<th>Non-sustained VT</th>
<th>%LVEF</th>
<th>Total N (ICD arm)</th>
<th>Primary outcome</th>
<th>Duration follow-up</th>
<th>ICD type/No. of leads</th>
<th>Enrollment period</th>
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<tr>
<td>CABG-Patch Bigger 1997</td>
<td>9371853 RCT</td>
<td>ICD (No ICD)</td>
<td>64 ± 9 (13)</td>
<td>NYHA not a criterion</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>&lt;36</td>
<td>900 (446)</td>
<td>Death, all-cause</td>
<td>4 y mean 32 ± 16 mo (2.67 y)</td>
<td>nd</td>
<td>Pilot began 1990 with full-scale study started in 1993</td>
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<tr>
<td>CAT Bansch 2002</td>
<td>11914254 RCT</td>
<td>ICD (Control)</td>
<td>52 ± 12 (14)</td>
<td>II, III</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>≤30</td>
<td>104 (50)</td>
<td>Death, all-cause at 1 y</td>
<td>6 y</td>
<td>nd</td>
<td>5/1991-3/1997</td>
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<td>Chan 2009</td>
<td>20031808 nRCS</td>
<td>ICD (No ICD)</td>
<td>65.9 ± 10.6 (20)</td>
<td>NYHA not a criterion</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>≤35</td>
<td>965 (494)</td>
<td>Death, all-cause</td>
<td>5 y</td>
<td>nd</td>
<td>3/2001-6/2005</td>
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<td>COMPANION Bristow 2004</td>
<td>15152059 RCT</td>
<td>ICD +CRT (No ICD)</td>
<td>66 (33)</td>
<td>III, IV</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>≤35</td>
<td>1520 (595)</td>
<td>Death from or hospitalization for any cause</td>
<td>1080 d (2.95 y) median 14 mo (weighted average of CRT-D and control groups)</td>
<td>Multi-chamber</td>
<td>1/2000-11/2002</td>
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<td>DEFINITE Kadish 2004</td>
<td>15152060 RCT</td>
<td>ICD (No ICD)</td>
<td>58.4; range 20.3-83.9 (28)</td>
<td>I, II, III</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>&lt;36</td>
<td>458 (229)</td>
<td>Death, all-cause</td>
<td>5 y mean 29 ± 14.4 mo (2.42 y)</td>
<td>Single-chamber</td>
<td>1998-2002 (randomization date)</td>
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<tr>
<td>DINAMIT Hohnloser 2004</td>
<td>15590950 RCT</td>
<td>ICD (No ICD)</td>
<td>61.5 ±10.9 (24)</td>
<td>I, II, III</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>≤35</td>
<td>674 (332)</td>
<td>Death, all-cause</td>
<td>4 y mean 2.5 y</td>
<td>Single-chamber</td>
<td>1998-nd (last follow-up 9/2003)</td>
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<tr>
<td>Fonarow 2000</td>
<td>10760339 nRCS</td>
<td>ICD (Control)</td>
<td>49 ± 12 (32)</td>
<td>III, IV</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>&lt;35</td>
<td>147 (25)</td>
<td>nd</td>
<td>mean 22 ± 26 mo</td>
<td>nd</td>
<td>1/1988-1/1997</td>
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<tr>
<td>Study</td>
<td>Author Year</td>
<td>PMID</td>
<td>Design</td>
<td>Intervention (Control)</td>
<td>Mean Age (% Female)</td>
<td>NYHA class</td>
<td>Ischemic</td>
<td>Non-ischemic</td>
<td>Non-sustained VT</td>
<td>%LVEF</td>
<td>Total N (ICD arm)</td>
<td>Primary outcome</td>
<td>Duration follow-up</td>
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<td>-----------------------------</td>
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<tr>
<td>ICD vs. no ICD</td>
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</tr>
<tr>
<td>MADIT</td>
<td>Moss 1996</td>
<td>8960472</td>
<td>RCT</td>
<td>ICD (No ICD)</td>
<td>62 ± 9 (8)</td>
<td>I, II, III</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>≤35</td>
<td>196 (95)</td>
<td>Death, all-cause</td>
<td>5 y mean 27 mo</td>
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<td>MADIT II</td>
<td>Moss 2002</td>
<td>11907286</td>
<td>RCT</td>
<td>ICD (No ICD)</td>
<td>64 ± 10 (16)</td>
<td>I, II, III</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>≤30</td>
<td>1232 (742)</td>
<td>Death, all-cause</td>
<td>mean 20 mo range 6 d-53 mo</td>
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<tr>
<td>Mezu 2011</td>
<td>21640321 nRCS</td>
<td></td>
<td></td>
<td>ICD (No ICD)</td>
<td>82 ± 3 (23)</td>
<td>I, II, III</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>≤35</td>
<td>152 (99)</td>
<td>Death, all-cause</td>
<td>4 y mean 2.3 y</td>
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<tr>
<td>OPTIMIZE-HF and GWTG-HF</td>
<td>Hernandez 2010</td>
<td>20009044</td>
<td>nRCS</td>
<td>ICD (No ICD)</td>
<td>74.3 ± 5.5 (26)</td>
<td>NYHA not a criterion</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<td>4685 (376)</td>
<td>Death, all-cause</td>
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<td>SCD-HeFT</td>
<td>Bardy 2005</td>
<td>15659722</td>
<td>RCT</td>
<td>ICD (No ICD/placebo)</td>
<td>Median 60.1; IQR 51.9-69.2 (23)</td>
<td>II or III</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>≤35</td>
<td>2521 (829)</td>
<td>Death, all-cause</td>
<td>6 y median (survivors) 45.5 mo</td>
</tr>
</tbody>
</table>

*The CRT-P arm of COMPANION study was not used for the meta-analysis
†The amiodarone arm of SCD-HeFT was not used for the meta-analysis
‡For ICD arm only

AMIOVERT = Amiodarone versus Implantable Cardioverter-Defibrillator Randomized Trial, CAGB-Patch = Coronary Artery Bypass Graft Patch, CAT = Cardiomyopathy Trial, COMPANION = Comparison of Medical Therapy, Pacing and Defibrillation in Heart Failure, CRT = cardiac resynchronization therapy, d = day, DEFINITE = Defibrillators in Nonischemic Cardiomyopathy Treatment Evaluation, DINAMIT = Defibrillator in Acute Myocardial Infarction Trial, GWTG-HF = Get With the Guidelines-Heart Failure, ICD = implantable cardiac defibrillator, IRIS = Immediate Risk Stratification Improves Survival, LV = left ventricular, MADIT = Multicenter Automatic Defibrillator Implantation Trial, mo = month, nd = not documented, nRCS = nonrandomized controlled study, NYHA = New York Heart Association, OPTIMIZE-HF = Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients with Heart Failure, RCT = randomized controlled trial, SCD-HeFT = Sudden Cardiac Death in Heart Failure Trial, VT = ventricular tachycardia, y = year
### Supplement Table 3. Subgroup Analyses of ICD vs. No ICD for All-Cause Mortality

<table>
<thead>
<tr>
<th>Study, Author, Year, PMID</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>P Interaction</th>
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<tr>
<td><strong>Age</strong></td>
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<td></td>
<td></td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>Continuous:</td>
<td>nd</td>
<td></td>
<td></td>
<td>P&gt;0.2</td>
</tr>
<tr>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>Continuous:</td>
<td>nd</td>
<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>MADIT II, Goldenberg, 2007 17126763</td>
<td>&lt; 65 y</td>
<td>0.79 (0.48, 1.29)</td>
<td>65-74 y</td>
<td>0.63 (0.41, 0.95)</td>
<td>P=0.75</td>
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<tr>
<td></td>
<td>≥75 y</td>
<td>0.70 (0.41, 1.20)</td>
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<td></td>
<td>P&gt;0.2</td>
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<tr>
<td></td>
<td>&lt;75 y</td>
<td>0.63 (0.45, 0.88)</td>
<td>≥75 y</td>
<td>0.56 (0.29, 1.08)</td>
<td>P=0.75</td>
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<tr>
<td></td>
<td>≥70 y:</td>
<td>0.6 (0.45, 0.95)</td>
<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>Huang 2007 17537209</td>
<td>&lt;60 y:</td>
<td>0.74 (0.43,1.28)</td>
<td>65-74 y:</td>
<td>0.76 (0.45, 1.29)</td>
<td>P=0.43</td>
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<tr>
<td></td>
<td>≥60 y:</td>
<td>0.9 (0.4, 1.9)</td>
<td>≥60:</td>
<td>1.2 (0.8, 1.9)</td>
<td>P=0.46</td>
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<tr>
<td></td>
<td>≥75 y:</td>
<td>0.59 (0.39, 0.90)</td>
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<td></td>
<td>P=0.31</td>
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<td>DINAMIT, Hohnloser, 2004, 15590950</td>
<td>&lt;60 y:</td>
<td>0.6 (0.3, 0.95)</td>
<td>&gt;65 y:</td>
<td>0.7 (0.5, 1.0)</td>
<td>nd</td>
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<tr>
<td></td>
<td>≥65 y:</td>
<td>0.73 (0.58, 0.90)</td>
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<td></td>
<td>nd</td>
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<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>&lt;65 y:</td>
<td>0.6 (0.3, 1.1)</td>
<td>&gt;65 y:</td>
<td>0.7 (0.4, 0.9)</td>
<td>nd</td>
</tr>
<tr>
<td></td>
<td>≥65 y:</td>
<td>0.65 (0.41,0.83)</td>
<td></td>
<td></td>
<td>P=0.53</td>
</tr>
<tr>
<td>SCD-HeFT, Bardy 2005 15659722</td>
<td>&lt;65 y:</td>
<td>0.68 (0.50, 0.93)</td>
<td>&gt;65 y:</td>
<td>0.86 (0.62, 1.18)</td>
<td>nd</td>
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<td>DEFINITE, Kadish, 2004, 15152060</td>
<td>&lt;65 y:</td>
<td>0.7 (0.3, 1.4)</td>
<td>&gt;65 y:</td>
<td>0.6 (0.3, 1.2)</td>
<td>NS</td>
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<tr>
<td>IRIS, Steinbeck, 2009, 19812399</td>
<td>&lt;65 y:</td>
<td>0.95 (0.6, 1.5)</td>
<td>&gt;65 y:</td>
<td>1.05 (0.8, 1.5)</td>
<td>P=0.73</td>
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<tr>
<td>OPTIMIZE-HF and GWTG-H, Hernandez, 2010, 2000944*</td>
<td>65-74 y:</td>
<td>0.65 (0.47, 0.89)</td>
<td>75-84 y:</td>
<td>0.80 (0.62, 1.03)</td>
<td>P=0.31</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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<td></td>
<td></td>
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<tr>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>Female</td>
<td>nd</td>
<td>Male:</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>&lt;65 y:</td>
<td>0.6 (0.3, 1.1)</td>
<td>&gt;65 y:</td>
<td>0.65 (0.4, 0.9)</td>
<td>nd</td>
</tr>
<tr>
<td></td>
<td>≥65 y:</td>
<td>0.65 (0.41,0.83)</td>
<td></td>
<td></td>
<td>P=0.53</td>
</tr>
<tr>
<td>DEFINITE, Kadish, 2004, 15152060</td>
<td>&lt;65 y:</td>
<td>0.6 (0.3, 1.1)</td>
<td>&gt;65 y:</td>
<td>0.73 (0.58, 0.90)</td>
<td>nd</td>
</tr>
<tr>
<td>IRIS, Steinbeck, 2009, 19812399</td>
<td>&lt;65 y:</td>
<td>0.95 (0.6, 1.5)</td>
<td>&gt;65 y:</td>
<td>0.80 (0.63,1.01)</td>
<td>P=0.15</td>
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<td>MADIT, Moss, 1996, 8960472</td>
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<td>nd</td>
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<td>nd</td>
<td>nd</td>
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<tr>
<td>OPTIMIZE-HF and GWTG-H, Hernandez, 2010, 2000944*</td>
<td>&lt;65 y:</td>
<td>0.65 (0.47, 0.89)</td>
<td>&gt;65 y:</td>
<td>0.80 (0.62, 1.03)</td>
<td>P=0.31</td>
</tr>
<tr>
<td>SCD-HeFT, Russo 2008 18373605</td>
<td>0.90 (0.56, 1.43)</td>
<td>0.71 (0.57, 0.88)</td>
<td>P=0.54‡</td>
<td></td>
<td></td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SCD-HeFT, Mitchell, 2008, 18294487</td>
<td>A:</td>
<td>0.65 (0.43, 0.99)</td>
<td>W:</td>
<td>0.73 (0.58, 0.90)</td>
<td>P=0.53</td>
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<tr>
<td>Bardy 2005 15659722</td>
<td>Non-white:</td>
<td>0.75 (0.48, 1.17)</td>
<td>W:</td>
<td>0.78 (0.61, 1.00)</td>
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<tr>
<td><strong>NYHA class</strong></td>
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<tr>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>III:</td>
<td>nd</td>
<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>III:</td>
<td>0.6 (0.4, 0.97)</td>
<td>IV:</td>
<td>0.6 (0.4, 1.0)</td>
<td>nd</td>
</tr>
<tr>
<td>DEFINITE, Kadish, 2004, 15152060</td>
<td>I:</td>
<td>0.5 (0.2, 1.5)</td>
<td>II:</td>
<td>1.0 (0.5, 2.2)</td>
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<tr>
<td></td>
<td>III:</td>
<td>0.37 (0.15, 0.90)</td>
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<tr>
<td>DINAMIT, Hohnloser, 2004, 15590950</td>
<td>0-II:</td>
<td>1.1 (0.7, 1.7)</td>
<td>III:</td>
<td>1.0 (0.5, 2.3)</td>
<td>P=0.87</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
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<td>nd</td>
<td></td>
<td>nd</td>
<td>P&gt;0.2</td>
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<tr>
<td>MADIT II Moss, 2002, 11907286</td>
<td>I</td>
<td>0.6 (0.5, 0.9)</td>
<td>II-IV:</td>
<td>0.7 (0.45, 1.0)</td>
<td>NS</td>
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† Denotes interaction with race/ethnicity
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<tr>
<th>Study, Author, Year, PMID</th>
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<th>HR/RR (95% CI)</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>P Interaction</th>
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<tr>
<td></td>
<td>I</td>
<td></td>
<td>II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MADIT II Zareba 2005 15950580</td>
<td>I</td>
<td>0.72 (0.43, 1.21)</td>
<td>II:</td>
<td>0.65 (0.43, 0.99)</td>
<td>0.65 (0.38, 1.10)</td>
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<tr>
<td>SCD-HeFT, Bardy 2005 15659722</td>
<td>II:</td>
<td>0.54 (0.40, 0.74)†</td>
<td>III:</td>
<td>1.16 (0.84, 1.61)†</td>
<td>P&lt;0.001</td>
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**Heart Failure**

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<tr>
<th>Study, Author, Year, PMID</th>
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<th>HR/RR (95% CI)</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>P Interaction</th>
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<tbody>
<tr>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>Yes:</td>
<td>nd</td>
<td>No:</td>
<td>nd</td>
<td>NS</td>
</tr>
<tr>
<td>Chan, 2009, 20031808*</td>
<td>≤20%:</td>
<td>0.69 (0.50, 0.93)</td>
<td>&gt;20%:</td>
<td>0.70 (0.35, 1.41)</td>
<td>P=0.59</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>1.2 (0.8, 1.8)</td>
<td>P&gt;0.2</td>
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<tr>
<td>IRIS, Steinbeck, 2009, 19812399</td>
<td>1.0 (0.7, 1.4)</td>
<td>1.0 (0.7, 1.4)</td>
<td>1.2 (0.8, 1.8)</td>
<td>P=0.56</td>
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<tr>
<td>SCD-HeFT, Bardy 2005 15659722</td>
<td>≤30%:</td>
<td>0.73 (0.57, 0.92)†</td>
<td>&gt;30%:</td>
<td>1.08 (0.57, 2.07)†</td>
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</table>

**LVEF**

<table>
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<tr>
<th>Study, Author, Year, PMID</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>Subgroup</th>
<th>HR/RR (95% CI)</th>
<th>P Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>≤25%:</td>
<td>0.73 (0.51, 1.04)</td>
<td>26-35%:</td>
<td>0.59 (0.37, 0.93)</td>
<td>P=0.61</td>
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<tr>
<td>Chan, 2009, 20031808*</td>
<td>≤20%:</td>
<td>0.6 (0.4, 0.9)</td>
<td>&gt;20%:</td>
<td>0.7 (0.4, 1.1)</td>
<td>nd</td>
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<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>≤20%:</td>
<td>0.9 (0.4, 2.0)</td>
<td>≥20%:</td>
<td>0.5 (0.3,0.95)</td>
<td>NS</td>
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<tr>
<td>DEFINITE, Kadish, 2004, 15152060</td>
<td>&lt;26%:</td>
<td>1.5 (0.8, 2.7)</td>
<td>26-35%:</td>
<td>0.85 (0.5, 1.5)</td>
<td>P=0.16</td>
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<tr>
<td>DINAMIT, Hohnloser, 2004, 15590950</td>
<td>≤30%:</td>
<td>0.76 (0.59, 0.98)§</td>
<td>All patients:</td>
<td>0.71 (0.56, 0.91)§</td>
<td>NA</td>
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<tr>
<td>OPTIMIZE-HF and GWTG-H, Hernandez, 2010, 20009044*</td>
<td>Continuous:</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>≤30%:</td>
<td>0.76 (0.59, 0.98)§</td>
<td>All patients:</td>
<td>0.71 (0.56, 0.91)§</td>
<td>NA</td>
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<tr>
<td>MADIT II, Moss, 2002, 11907286</td>
<td>≤25%:</td>
<td>0.6 (0.5, 0.9)</td>
<td>&gt;25%:</td>
<td>0.7 (0.4, 1.2)</td>
<td>NS</td>
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<tr>
<td>MADIT II Zareba 2005 15950580</td>
<td>≤20%:</td>
<td>0.74 (0.50, 1.08)</td>
<td>21-25%:</td>
<td>0.65 (0.38, 1.13)</td>
<td>0.91</td>
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<tr>
<td>≤30%:</td>
<td>0.65 (0.37, 1.15)</td>
<td>&gt;30%:</td>
<td>1.08 (0.57, 2.07)†</td>
<td>nd</td>
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<tr>
<td>SCD-HeFT, Bardy 2005 15659722</td>
<td>≤100 msec:</td>
<td>nd</td>
<td>&gt;100 msec:</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>LBBB</td>
<td>LBBB:</td>
<td>0.5 (0.4, 0.8)</td>
<td>Other:</td>
<td>0.9 (0.5, 1.6)</td>
<td>nd</td>
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<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>LBBB:</td>
<td>nd</td>
<td>No LBBB:</td>
<td>nd</td>
<td>P&gt;0.2</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>LBBB:</td>
<td>nd</td>
<td>No LBBB:</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>MADIT II, Moss, 2002, 11907286</td>
<td>LBBB:</td>
<td>nd</td>
<td>No LBBB:</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>QRS Duration</td>
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<td>nd</td>
<td>&gt;100 msec:</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>CABG-Patch, Bigger, 2004, 15152059</td>
<td>≤147 msec:</td>
<td>0.8 (0.4, 1.3)</td>
<td>148-168 msec:</td>
<td>0.6 (0.3, 1.0)</td>
<td>nd</td>
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<tr>
<td>≤147 msec:</td>
<td>0.8 (0.4, 1.3)</td>
<td>148-168 msec:</td>
<td>0.6 (0.3, 1.0)</td>
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<td>≥148 msec:</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>NS</td>
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<tr>
<td>DEFINITE, Kadish, 2004, 15152060</td>
<td>≤120 msec:</td>
<td>0.75 (0.4, 1.5)</td>
<td>≥120 msec:</td>
<td>0.5 (0.2, 1.1)</td>
<td>NS</td>
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<td>≥120 msec:</td>
<td>0.85 (0.5, 1.4)</td>
<td>≥120 msec:</td>
<td>1.5 (0.8, 2.9)</td>
<td>P=0.13</td>
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<tr>
<td>DINAMIT, Hohnloser, 2004, 15590950</td>
<td>≤120 msec:</td>
<td>0.7 (0.5, 1.2)</td>
<td>120-150 msec:</td>
<td>0.6 (0.4, 1.1)</td>
<td>NS</td>
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<td>MADIT II, Moss, 2002, 11907286</td>
<td>≤120 msec:</td>
<td>0.7 (0.5, 1.2)</td>
<td>120-150 msec:</td>
<td>0.6 (0.4, 1.1)</td>
<td>NS</td>
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<tr>
<td>≥150 msec:</td>
<td>0.5 (0.3, 0.9)</td>
<td>≥120 msec:</td>
<td>0.67 (0.49, 0.93)†</td>
<td>nd</td>
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</tr>
<tr>
<td>SCD-HeFT, Bardy 2005 15659722</td>
<td>≤120 msec:</td>
<td>0.84 (0.62, 1.14)†</td>
<td>≥120 msec:</td>
<td>0.67 (0.49, 0.93)†</td>
<td>nd</td>
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**Heart Disease**

<table>
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<th>Study, Author, Year, PMID</th>
<th>Ischemic:</th>
<th>Non-ischemic:</th>
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<tbody>
<tr>
<td>COMPANION, Bristow, 2004, 15152059</td>
<td>0.73 (0.52, 1.04)</td>
<td>0.5 (0.29, 0.88)</td>
</tr>
<tr>
<td>Time Since Myocardial Infarction</td>
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<tr>
<td>Study, Author, Year, PMID</td>
<td>Subgroup</td>
<td>HR/RR (95% CI)</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>----------------</td>
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<tr>
<td>SCD-HeFT, Piccini, 2011, 21109025</td>
<td>&lt;18 mo:</td>
<td>0.7 (0.37, 1.31)†</td>
</tr>
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<td>52-111 mo:</td>
<td>1.47 (0.75, 2.87)†</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>&lt;6 mo:</td>
<td>nd</td>
</tr>
<tr>
<td></td>
<td>&lt;18 mo:</td>
<td>0.97 (0.51, 1.81)</td>
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<tr>
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<td>18-59 mo:</td>
<td>0.52 (0.26, 1.05)</td>
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<tr>
<td></td>
<td>≥120 mo:</td>
<td>0.62 (0.36, 1.08)</td>
</tr>
<tr>
<td>MADIT II, Moss, 2002, 11907286</td>
<td>&lt;6 mo:</td>
<td>nd</td>
</tr>
<tr>
<td>MADIT II, Wilbur, 2004, 14993128</td>
<td>&lt;6 mo:</td>
<td>nd</td>
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<td>&lt;18 mo:</td>
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</tr>
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<td></td>
<td>18-59 mo:</td>
<td>0.52 (0.26, 1.05)</td>
</tr>
<tr>
<td>Prior Coronary Revasc</td>
<td>CR:</td>
<td>nd</td>
</tr>
<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>CABG:</td>
<td>0.87 (0.62, 1.22)</td>
</tr>
<tr>
<td>SCD-HeFT, Al-Khatib 2008 18479330</td>
<td>PCI:</td>
<td>0.66 (0.36, 1.22)</td>
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<tr>
<td>Time Since Coronary Revasc</td>
<td>≤6 mo:</td>
<td>1.19 (0.40, 3.54)</td>
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<tr>
<td>MADIT II, Goldenberg, 2006, 16682305</td>
<td>7-60 mo:</td>
<td>0.55 (0.31, 0.97)</td>
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<tr>
<td>SCD-HeFT, Al-Khatib 2008 18479330</td>
<td>CABG ≤2 y:</td>
<td>1.40 (0.61, 3.24)</td>
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<td>Time since PCI:</td>
<td>nd</td>
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<td>Diabetes Mellitus</td>
<td>CABG-Patch, Bigger, 1997, 9371853</td>
<td>Yes:</td>
</tr>
<tr>
<td>Chan, 2009, 20031808*</td>
<td>CR:</td>
<td>nd</td>
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<td></td>
<td>CABG:</td>
<td>0.68 (0.45, 1.03)</td>
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<tr>
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<td>PCI:</td>
<td>0.66 (0.36, 1.22)</td>
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<td>Blood Urea Nitrogen</td>
<td>≤25 mg/dL:</td>
<td>nd</td>
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<tr>
<td>MADIT, Moss, 1996, 8960472</td>
<td>≤25 mg/dL:</td>
<td>nd</td>
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<tr>
<td>MADIT II Moss, 2002, 11907286</td>
<td>≤25 mg/dL:</td>
<td>nd</td>
</tr>
<tr>
<td>MADIT II Zareba 2005 15950580</td>
<td>≤25 mg/dL:</td>
<td>nd</td>
</tr>
<tr>
<td>Kidney Disease</td>
<td>≤25 mg/dL:</td>
<td>nd</td>
</tr>
<tr>
<td>Chan, 2009, 20031808*</td>
<td>Kidney failure:</td>
<td>0.52 (0.11, 2.48)</td>
</tr>
<tr>
<td>MADIT II, Goldenberg, 2006, 16893702</td>
<td>eGFR ≥35:</td>
<td>1.09 (0.49, 2.43)</td>
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<tr>
<td></td>
<td>eGFR 35-59:</td>
<td>0.74 (0.48, 1.15)</td>
</tr>
</tbody>
</table>

AA = African American, CABG = coronary artery bypass graft, CR = coronary revascularization, eGFR = estimated glomerular filtration rate (in mL/min/m²), HR = hazard ratio, ICD = implantable cardiac defibrillator, LBBB = left bundle branch block, LVEF = left ventricular ejection fraction, mo = month, NA = not applicable, nd =no data, NS = Not statistically significant (no P-value documented), PCI = percutaneous coronary revascularization, PMID = PubMed ID, Revasc = revascularization, RR = risk ratio, y = years.

* Nonrandomized comparative study
† 97.5% confidence interval
‡ P value refers to comparison of subgroups across all three study arms. (ICD, amiodarone, and placebo).
§ Only the LVEF <30% subgroup analysis was reported. The alternative group given here is from the total analysis, regardless of LVEF.
### Supplement Table 4. Subgroup Analyses of ICD vs. No ICD for Sudden Cardiac Death

| Study                        | Author, Year, PMID                        | Mean ° (Range) | Subgroup 1 (n) vs. Subgroup 2 (n)† | OR‡ (CI), Subgroup 1 | OR‡ (CI), Subgroup 2 | ROR§ (CI) | Reported P|| |
|------------------------------|-------------------------------------------|----------------|-----------------------------------|----------------------|----------------------|-----------|-------------|
| **Age**                      |                                            |                |                                   |                      |                      |           |             |
| MADIT II, Goldenberg, 2007,  | 17126763                                  | <65 (574) vs. 65-74 y (455) | 0.32 (0.12, 0.84) | 0.35 (0.17, 0.73) | 0.91 (0.27, 3.08) | 0.74¶     |             |
| 17126763                     |                                            | 65-74 (455) vs. ≥75 y (204) | 0.35 (0.17, 0.73) | 0.32 (0.10, 1.00) | 1.09 (0.28, 4.27) |           |             |
| MADIT II, Huang, 2007, 17537209 |                                            | <75 (1,028) vs. ≥75 y (204) | Risk reduction: 6% | Risk reduction: 12% |                    |           |             |
| Time since myocardial infarction |                                    | <18 mo (178) vs. 18-51 mo (178) | 0.47 (0.16, 1.42) | nd                   | 1.09 (0.28, 4.27) |           |             |
| SCD-HeFT, Piccini, 2011, 21109025 |                                            | ≤6 mo (130) vs. >6 mo (821) | 2.01 (0.18, 22.2) | nd                   | 1.68 (0.29, 9.57) | P=0.68     |             |
| Time since coronary revascularization |                                    | ≤2 y vs. >2 y | 0.27 (0.11, 0.66) | nd                   | nd                   | nd         | P=0.38     |
| SCD-HeFT, Al-Khatib 2008, 18479330 |                                            | Time since CABG: 5.3 (2.2, 9.1) y Median (IQR) | nd                   | nd                   | nd                   | nd         | P=0.80     |
| Prior revascularization |                                            | Prior CABG (449) vs. no CABG (433) | 0.52 (0.26, 1.02) | 0.44 (0.23, 0.83) | 1.18 (0.46, 3.02) | P=0.94     |             |
| SCD-HeFT, Al-Khatib 2008, 18479330 |                                            | Prior PCI (343) vs. no PCI (539) | 0.31 (0.08, 1.13) | 0.51 (0.31, 0.85) | 0.61 (0.15, 2.51) |           |             |
| Kidney disease               |                                            | eGFR<35 (80) vs. eGFR ≥35 (1143) | 0.95 (0.23, 4.00) | 0.34 (0.20, 0.56) | 2.79 (0.61, 12.7) | P=0.19     |             |
| MAdIT II, Goldenberg, 2006, 16893702 |                                            | eGFR 35-59 (387) vs. eGFR≥60 (756) | 0.37 (0.19, 0.74) | 0.32 (0.15, 0.69) | 1.16 (0.42, 3.21) |           |             |

CABG = coronary artery bypass graft, CR = coronary revascularization, eGFR = estimated glomerular filtration rate (in mL/min/m²), HR = hazard ratio, ICD = implantable cardiac defibrillator, IQR = interquartile range, MI = myocardial infarction, mo = month, nd =no data, PCI = percutaneous coronary revascularization, PMID = PubMed ID, Revasc = revascularization, RR = risk ratio.

* ICD arm
† Number of participants analyzed, unless otherwise noted
‡ Reported odds ratio or relative risk or hazard ratio.
§ Relative odds ratios and their confidence intervals calculated from reported odds ratios (etc.) for each subgroup.
|| The reported P value for the interaction among subgroups.
¶ P-value for the interaction across 3 subgroups (<65, 65-74, ≥75)
Supplement Figure 1. Literature Flow Diagram

Citations retrieved from MEDLINE (through September 3, 2013) and Cochrane Central Register of Controlled Trials (though 2nd Quarter 2013) (n=11,314)

Excluded (n=10,966)
-- Did not meet broad eligibility criteria per title and abstract

Articles identified for full-text retrieval (n=348)

Excluded (n=268)
-- Ineligible study design (n=70)
-- No outcomes of interest (n=43)
-- Not population of interest (n=37)
-- Mixed primary & secondary prevention, no adverse events (n=33)
-- Secondary prevention only (n=31)
-- Adverse event paper with N<500 (n=13)
-- Adverse event paper published <2002 (n=10)
-- Adverse event studies (n=57)
-- Other (n=31)

Included studies (n=80 articles*)

Efficacy of ICD (n=27 articles*)
10 RCTs
4 nRCSs
14: ICD vs no ICD

Subgroup analysis (n=10 studies)

Studies could have had more than one reason for exclusion but only one reason for each is listed here.
* Includes multiple publications (articles) derived from the same studies.
ICD = implanted cardioverter defibrillator, nRCSs = nonrandomized comparative studies, RCTs = randomized controlled trials.
Supplement Figure 2. Random-Effects Model Meta-analysis of ICD vs. No ICD for All-Cause Mortality

CI = confidence interval; CRT-D = cardiac resynchronization therapy with a defibrillator; CRT-P = cardiac resynchronization therapy with a pacemaker (without a defibrillator); f/up = follow-up; HR = hazard ratio; ICD = implantable cardiac defibrillator; n/N = total events (deaths)/total analyzed.

* Values in brackets are medians; ~ signifies approximate.
† Not included in meta-analyses (the alternative comparison for each study was the only comparison included in meta-analyses).
‡ Hazard ratio and confidence interval estimated from reported data.
§ The 8-year (maximum) followup of MADIT II (Barsheshet 2011) excluded because it analyzed an arbitrary subgroup of ICD group only.
¶ Differential use of beta blockers between ICD and amiodarone groups (but not between ICD and no ICD groups).
Supplement Figure 3. Random-Effects Model Meta-analysis of ICD vs. No ICD for Arrhythmic Death

CI = confidence interval; f/up = follow-up; HR = hazard ratio; ICD = implantable cardiac defibrillator; n/N = total events (deaths)/total analyzed.

* Hazard ratio and CI estimated from reported data.
† Not included in meta-analyses (the alternative comparison for each study was the only comparison included in meta-analyses).
‡ Differential use of beta blockers between ICD and amiodarone groups (but not between ICD and no ICD groups).