## Supplement 5. Detailed Study Characteristics

<table>
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<tr>
<th>Study</th>
<th>Location</th>
<th>Setting</th>
<th>Sponsoring Organization</th>
<th>N Participants</th>
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</table>
| **Cardiovascular risk factors: Diabetes**  
Aubert, 1998 (1) | Florida, USA      | Primary care clinics        | Private system           | 138 randomized, 100 completed | Median age (IQR)  
Intervention group: 53.0 (47.0 to 61.0)  
Usual care: 54.0 (46.0 to 60.0) | Diabetes, mixed type 1 and 2 | 12 months |  
- HbA1c > 7%  
- A1c  
- Blood pressure  
- Total and low-density-lipoprotein cholesterol | Intervention  
Nurse-led clinic + team care for glucose run by RN+ST | Randomized controlled trial |
|          | Bellary, 2008 (2) | Western Europe              | Primary care clinics     | 1486 randomized, 1486 completed | <Age 45: 14%  
Age 45–65: 56%  
>Age 65: 30% | Diabetes, all type 2  
Severity: NR | Every 2 months for 20 months |  
- A1c  
- Blood pressure  
- Total cholesterol  
- Performance measure | Intervention  
Nurse-led clinic for glucose, blood pressure, and lipids run by RN+ST | Randomized controlled trial |
|          | Fischer, 2012 (3) | Colorado, USA               | Primary care clinic      | 762 randomized, 762 completed | Age, grand mean for total (SD): 58.4 (NR) | Diabetes, type NR  
Creatinine <3.0 mg/dL | 20 months |  
- A1c  
- Total and low-density-lipoprotein cholesterol  
- Performance measure | Intervention  
Disease management program for glucose, blood pressure, and lipids run by RN+ST including education and self-management | Randomized controlled trial |
|          | [Fischer, 2008 (4)] | US Government               | Primary care clinic      | 762 randomized, 762 completed | Race/ethnicity, grand mean for total:  
Black 3.3  
Hispanic 81.4  
White 13.5  
Other 2.0 | Diabetes, type NR  
Creatinine <3.0 mg/dL | 20 months |  
- A1c  
- Total and low-density-lipoprotein cholesterol  
- Performance measure | Comparator  
Usual care | Low risk of bias, good quality |
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<tr>
<td>Houweling, 2009 (5)</td>
<td>Western Europe</td>
<td>Primary care clinics</td>
<td>Netherlands</td>
<td>95 randomized, 84 completed</td>
<td>Age, grand mean for total (SD): 61.4 (NR)</td>
<td>Female, grand mean for total: 53.3</td>
<td>Race/ethnicity: NR</td>
<td>Diabetes, all type 2</td>
<td>Severity: NR</td>
<td>12 months</td>
<td>Intervention: Nurse-led clinic for glucose, blood pressure, lipids run by nurse</td>
<td>Randomized controlled trial</td>
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<tr>
<td>Houweling, 2011 (6)</td>
<td>Western Europe</td>
<td>Primary care clinics</td>
<td>Netherlands</td>
<td>230 randomized, 206 completed</td>
<td>Age, grand mean for total (SD): 60.0 (NR)</td>
<td>Female, grand mean for total: 52.4</td>
<td>Race/ethnicity: NR</td>
<td>Diabetes, all type 2</td>
<td>Severity: NR</td>
<td>14 months</td>
<td>Intervention: Nurse-led clinic for glucose, blood pressure, and lipids run by RN+ST including education</td>
<td>Low risk of bias, good quality</td>
</tr>
<tr>
<td>MacMahon Tone, 2009 (7)</td>
<td>Western Europe</td>
<td>Hospital-based diabetes care clinic</td>
<td>Ireland</td>
<td>200 randomized, 188 completed</td>
<td>Age, grand mean for total (SD): 61.7 (NR)</td>
<td>Female, grand mean for total: 46.0</td>
<td>Race/ethnicity: NR</td>
<td>Diabetes, type 2 (with hypertension and hyperlipidemia)</td>
<td>Total cholesterol &gt;4.8 mmol/L, low-density-lipoprotein cholesterol &gt;2.6 mmol/L, or blood pressure &gt;130/80 mm Hg</td>
<td>12 months</td>
<td>Intervention: Nurse-led clinic for glucose, blood pressure, and lipids run by specialist nurse including education</td>
<td>Moderate risk of bias, fair quality</td>
</tr>
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</table>

Cardiovascular risk factors: Diabetes with hypertension and hyperlipidemia

- A1c
- Blood pressure
- Total and low-density-lipoprotein cholesterol
- HRQOL
- Performance measure

- A1c
- Blood pressure
- Total cholesterol
- HRQOL
- Performance measure

- Behavioral adherence
- Performance measure
- A1c
- Blood pressure
- Total and low-density-lipoprotein cholesterol

- Usual care
- Usual care
- Usual care
<table>
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<tr>
<th>Study^a</th>
<th>Location Setting</th>
<th>Sponsoring Organization</th>
<th>N Participants</th>
<th>Age in Years Female (%) Race/ethnicity (%)</th>
<th>Target Condition Baseline Severity Measure</th>
<th>Study Duration Outcomes Reported</th>
<th>Intervention and Comparator^b</th>
<th>Design and Quality</th>
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<tr>
<td>Meulepas, 2008 (8)</td>
<td>Western Europe Primary care clinics Government (not US)</td>
<td>993 randomized, 900 completed (non-RCT)</td>
<td>Age, grand mean for total (SD): 69.5 (NR) Female, grand mean for total: 53.5 Race/ethnicity: NR</td>
<td>Diabetes, type 2 (with hypertension and hyperlipidemia) Severity: NR</td>
<td>36 months</td>
<td>• Behavioral adherence • Performance measure • A1c • Total cholesterol</td>
<td>Intervention Nurse-led clinic for glucose, blood pressure, and lipids run by nurse including education</td>
<td>Non-Randomized controlled trial</td>
</tr>
<tr>
<td>New, 2003 (9) [Mason, 2005 (10)]</td>
<td>Western Europe Shared care clinic National Health System, UK</td>
<td>Randomized: 1014 in hypertension group and 683 in hyperlipidemia group Completed: 835 in hypertension group and 627 in hyperlipidemia group</td>
<td>Median age (IQR) Hypertension group: 63.5 (55.4 to 72.1) Usual care: 63.7 (56.4 to 71.9) Hyperlipidemia group: 56.5 (45.1 to 66.9) Usual care: (56.4 to 71.9)</td>
<td>Diabetes, type NR (with hypertension and hyperlipidemia) SBP ≥140 or DBP ≥80 mmHg or total cholesterol ≥5.0 mmol/L</td>
<td>Mean intervention length 2.5 months, mean followup 18 months</td>
<td>• Blood pressure • Total cholesterol • Performance measure</td>
<td>Intervention Nurse-led clinic for blood pressure and lipids run by specialist nurse including education and self-management</td>
<td>Randomized controlled trial</td>
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^a Studies included in this analysis. ^b Intervention and Comparator: The intervention includes nurse-led clinic for glucose, blood pressure, and lipids run by nurse including education. The comparator includes concurrent usual care: Active recall of patients on central diabetes registry.
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| New, 2004 (11)   | Western Europe   | Primary care clinics    | 10,303 randomized, 9977 completed | Cluster RCT of 44 practices in UK National Health Service | Diabetes, type NR with hypertension and hyperlipidemia | Blood pressure >140/80 mmHg or total cholesterol >5 mmol/L | 24 months | • Blood pressure  
• Total cholesterol  
• Performance measure | Intervention  
Nurse-led clinic + education outreach for blood pressure and lipids run by specialist nurse including education and behavioral | Randomized controlled trial  
Moderate risk of bias, fair quality |
| Philis-Tsimikas, 2004 (12) | California, USA | Primary care clinics | 290 randomized, 229 completed (non-RCT) | Age, grand mean for total: 50.5 (NR)  
Female, grand mean for total: 68 | Diabetes, type 2 (with hypertension and hyperlipidemia) | HbA1c >9% | 12 months | • A1c  
• Blood pressure  
• Total cholesterol  
• Performance measure | Comparator  
Reverse control: 2-arm study where other intervention was control and vice versa | Non-Randomized controlled trial  
High risk of bias, poor quality |
| Taylor, 2003 (13) | California, USA | Primary care clinic | 169 randomized, 127 completed | Age, grand mean for total: 55.2 (NR)  
Female, grand mean for total: 47.5 | Diabetes, type 1 and 2 (with hypertension and hyperlipidemia) | HbA1c >10% | 12 months | • A1c  
• Blood pressure  
• Total and low-density-lipoprotein cholesterol  
• Performance measure | Comparator  
Concurrent usual care  
Disease management program + group education for glucose, blood pressure, and lipids run RN+ST including education and self-management | Randomized controlled trial  
Moderate risk of bias, fair quality |

<sup>a</sup> Study conducted in 2004.

<sup>b</sup> Comparator refers to the control group in the study.
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<td>Wallymahmed, 2011 (14)</td>
<td>Western Europe</td>
<td>Diabetes center</td>
<td>81 randomized, 78 completed</td>
<td>Age, grand mean for total: 34.7 (NR)</td>
<td>Diabetes, type 1 (with hypertension and hyperlipidemia)</td>
<td>HbA1c ≥8%</td>
<td>24 months</td>
<td>Intervention</td>
<td>Nurse-led clinic for glucose, blood pressure, and lipids run by RN+ST including education</td>
<td>Comparator</td>
</tr>
<tr>
<td>Cardiovascular risk factors: Diabetes with hypertension</td>
<td>Bebb, 2007 (15)</td>
<td>Western Europe</td>
<td>Primary care clinics, National Health System, UK</td>
<td>1534 randomized, 1420 completed</td>
<td>Age, grand mean for total: 64.3 (NR)</td>
<td>None</td>
<td>12 months</td>
<td>Intervention</td>
<td>Nurse-led clinic + algorithm implemented for blood pressure run by RN+ST</td>
<td>Comparator</td>
</tr>
<tr>
<td>Denver, 2003 (16)</td>
<td>Western Europe</td>
<td>Outpatient clinic, Hospital-affiliated, United Kingdom</td>
<td>120 randomized, 120 completed</td>
<td>Age, grand mean for total: 61.2 (NR)</td>
<td>Diabetes, type 2 (with hypertension)</td>
<td>BP &gt;140/80 mmHg</td>
<td>6 months</td>
<td>Intervention</td>
<td>Nurse-led clinic for blood pressure run by nurse including education</td>
<td>Comparator</td>
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<td>O'Hare, 2004 (17)</td>
<td>Western Europe</td>
<td>Primary care clinics</td>
<td>General practices</td>
<td>361 randomized, 325 completed</td>
<td>Total age: 58.8 (11.7)</td>
<td>Diabetes, type 2 (with hypertension)</td>
<td>12 months</td>
<td>Intervention</td>
<td>Nurse-led clinic for glucose, blood pressure, and lipids run by nurse including education and self-management</td>
<td>Randomized controlled trial</td>
</tr>
<tr>
<td>Rudd, 2004 (18)</td>
<td>California, USA</td>
<td>Primary care clinics</td>
<td>Private system</td>
<td>150 randomized, 137 completed</td>
<td>Age, grand mean for total (SD): 61.2 (NR)</td>
<td>Hypertension</td>
<td>6 months</td>
<td>Intervention</td>
<td>Disease management program for blood pressure run by care manager including education, behavioral, and self-management</td>
<td>Randomized controlled trial</td>
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<tr>
<td>Allison, 1999 (19)</td>
<td>Minnesota, USA</td>
<td>Cardiac rehabilitation center</td>
<td>University-affiliated</td>
<td>195 randomized, 152 completed</td>
<td>Total age (SD): 64.0 (11.0)</td>
<td>Hyperlipidemia</td>
<td>17 months</td>
<td>Intervention</td>
<td>Nurse-led clinic for lipids run by RN+ST including education, behavioral, and self-management</td>
<td>Randomized controlled trial</td>
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Cardiovascular risk factors: Hypertension

Cardiovascular risk factors: Hyperlipidemia
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<tr>
<td>DeBusk, 1994 (20)</td>
<td>California, USA Single site (not reported) Private system 585 randomized, 425 completed</td>
<td>Age, grand mean for total (SD): 57.0 (NR) Female, grand mean for total: 21.3 Race/ethnicity, grand mean for total: White 77</td>
<td>Hyperlipidemia Severity: NR</td>
<td>12 months</td>
<td>• Total and low-density-lipoprotein cholesterol • Behavioral adherence</td>
<td>Intervention Disease management program for lipids run by RN+ST including education and self-management Comparator Usual care</td>
</tr>
</tbody>
</table>

a Companion article is cited in brackets where applicable.
b All interventions included nurse-titrated medication (by eligibility criteria) and patient education.

DBP=diastolic blood pressure; HbA1c=glycosylated hemoglobin; HRQOL=health-related quality of life; IQR=interquartile range; LVEF=left ventricular ejection fraction; NR=not reported; NYHA=New York Heart Association; RN+ST=nurse with study-specific training; SBP=systolic blood pressure; SD=standard deviation; UK=United Kingdom
Reference List for Supplement 5


