Summary Tables

Table 1: Scheme for Grading the Evidence to Support the Use or Positive Impact of Interventions

Overall Assessment		Quality		Quantity	Consistency of Findings
		Study Designs	Objective Assessment[a]		
A	Excellent	at least one RCT[b]	≥ 75% studies	≥ 4 studies	consistent
B	Good	at least one controlled trial	≥ 50% studies	≥ 3 studies	reasonably consistent
C	Fair	no controlled trials	< 50% studies	≥ 2 studies	inconsistent
D	Poor	no controlled trials	< 50% studies	< 2 studies	too few studies to determine

[a] Objective assessment as rated on the Quality Assessment Form, Question 15
[b] RCT= Randomized controlled trial

Table 2. Summary of selected aspects of study quality for the 27 articles addressing Question 1

Selected Quality Assessment Domains and Items	Number of Articles	
	Yes	No
Representativeness		
- Healthcare providers clearly described?	20	7
Bias/confounding		
- Adequate comparison group?	26	1
- Randomized?	11	16
Intervention description		
- Complete description (able to replicate)?	24	3
Outcome assessment		
- Blinding?	9	18
- Pre- and post-test?	13	14
- Objective evaluation?	27	0
Analysis		
- Numbers and reasons of non-inclusion?	18	9
- Complete statistical analysis?	24	3

Table 3. Results of studies presented by clinical area and type of outcome for articles addressing Question 1[a]

	Main Intervention Method[b]	Healthcare Process Outcomes					Patient Outcomes	
		Utilization	Quality of Providers	Appropriateness of Care	Efficacy of Treatment	Patient Adherence	Health Status	Patient Satisfaction
PREVENTION, ADULT								
Adult General Prevention								
Gemson, 1995	Education		NA/++/++/++/NA/ NA/NA/++/++					
McDonald, 1984	T/R	++/0		++/++			0	
Turner, 1989	T/R			NA/NA/NA/NA/ NA/NA				
Adult Cancer Screening								
Burack, 1994	T/R			++/++/NA				
Burack, 1996	T/R	0		+				
Burack, 1997	T/R			++				
Burack, 1998	T/R	0		++				
Burack, 2003	T/R	++/0		++/0				
Chambers, 1989	T/R			++				
Dietrich, 1998	multi		++	0/0/0/0/0/0/0				
Mandelblatt, 1993	bypass MD			++/++				
Manfredi, 1998	multi			++/++/0/++				
McCarthy, 1997	bypass MD			NA				
Adult Tobacco Cessation								
Ahluwalia, 1999	T/R		++/++/+/++					
Allen, 1998	multi		+			0/0/0/0		
Adult Cholesterol								
Keyserling, 1997	multi		0	0/0		++	++/+/+	
PREVENTION, CHILDREN								
Health Behavior Screening								
Schubiner, 1994	STQ		+/+/++/+/+					0

	Main Intervention Method [b]	Healthcare Process Outcomes					Patient Outcomes	
		Utilization	Quality of Providers	Appropriateness of Care	Efficacy of Treatment	Patient Adherence	Health Status	Patient Satisfaction
Injury Prevention								
Gielen, 2001	Education		+		0	0		++

Table 3. Results of studies presented by clinical area and type of outcome for articles addressing question 1[a] (continued)

	Main Intervention Method[b]	Healthcare Process Outcomes					Patient Outcomes	
		Utilization	Quality of Providers	Appropriateness of Care	Efficacy of Treatment	Patient Adherence	Health Status	Patient Satisfaction
Well Baby Care								
Hornberger, 1996	Translation	0	+/+/+/+/+/+					+
MENTAL HEALTH								
Alcohol								
Burge, 1997	multi						0/++/0/0/0/ 0/0/0	
Depression								
Miranda, 2003	multi			++			++/0	
Callahan, 1994	multi			++/++/0/0			0	
OTHER CLINICAL AREAS								
Acute Respiratory Infections								
Harris, 2003	multi			0/0				
Asthma								
Evans, 1997	multi	NA/NA		++/++/NA				
Chronic Renal Disease								
Harris, 1998	NC	++/0/0/+		0			0/0/0	
Emergency Systems								
Kellerman, 1993	defib						0/0/0	
End of Life								
Dexter, 1998	T/R		++/+			+/+/+		

a: The outcome assessments in this table are based on between-group comparisons. "++" indicates significant improvement, "+" indicates improvement, "0" indicates no improvement, and "NA" indicates between-group comparison not available. If a cell is left blank, then the outcome type was not measured for that study. Outcomes separated by "/" indicate more than one outcome type. b: "T/R" indicates tracking and reminder, "multi" indicates multifaceted, "bypass MD" indicates bypass doctor with nurse, "STQ" indicates safe times questionnaire, "NC" indicates nephrologist consultation, and "defib" indicates defibrillators on emergency medical vehicles.

Table 4: Summary of interventions, clinical areas, and outcomes of studies addressing Question 1

Intervention Type[a]	Clinical Area (# studies)	Total # Studies	Overall Outcome Assessment across Studies	Rating of Evidence
Tracking/ Reminders	Adult, Prevention (9)	10	All studies reported favorable outcomes.	A
	End of Life (1)			
Multifaceted	Adult, Prevention (4)	9	Although almost all studies reported some positive impact on one or more outcome type, results within outcome type were inconsistent across studies.	C
	Depression (2)			
	Alchohol Abuse (1)			
	Asthma (1)			
	Upper Respiratory Tract Infections (1)			
Bypass MD	Adult, Prevention (2)	2	Both studies reported favorable outcomes in the provision of preventive services to patients.	C
Provider Education	Adult, Prevention (1)	2	Both studies reported favorable impact on provider counseling behaviors.	C
	Child, Prevention (1)			
Use of STQ[b]	Child, Prevention (1)	1	One study reported favorable impact on provider counseling behavior.	D
Use of RST[c]	Child, Prevention (1)	1	One study reported favorable outcomes on accuracy of translation and provider/patient satisfaction.	D
Use of Specialty Consult	Chronic Renal Disease (1)	1	One study did not demonstrate improvement.	D
Use of Defibrillators	Emergency Medicine (1)	1	One study did not demonstrate improvement.	D

[a] Note that characterization of interventions for purposes of synthesis reflects a simplification of employed methods. Consult Evidence Table 2 for details on methods for individual studies.
[b]STQ = safe times questionnaire
[c]RST = remote simultaneous translation

Table 5. Summary of selected aspects of study quality for the 64 articles addressing Question 2

Selected Quality Assessment Domains and Items	Number of Articles	
	Yes	No
Representativeness		
- Healthcare providers clearly described?	21	43
Bias/confounding		
- Adequate comparison group?	8	56
- Randomized?	1	63
Intervention description		
- Based on theoretical model?	17	47
- Complete description (able to replicate)?	21	43
Outcome assessment		
- Blinding?	3	61
- Pre- and post-test?	33	31
- Objective evaluation?	27	37
Analysis		
- Numbers and reasons of non-inclusion?	14	50
- Complete statistical analysis?	15	49

Table 6. Results of studies presented by type of outcome for the 34 articles addressing Question 2[a]

	Provider Outcomes			Patient Outcomes		
	Knowledge	**Attitudes**	**Skills**	**Satisfaction**	**Patient Adherence**	**Health Status**
Physicians						
Beagan, 2003		0 / 0 / 0				
Copeman, 1989	?	+ / ?				
Crandall, 2003	++	++	++			
Culhane-Pera, 1997	++	+ / +	++ / ++			
Dogra, 2001		0 / ?				
Farnill, 1997			++ / ++			
Godkin, 2001	++	++				
Godkin, 2003		++ / ? / ++				
Haq, 2000		++ / +	++			
Mao, 1988		+	++			
Mazor, 2002		+	++ / ?	++ / ++ / ++ / ++		
Nora, 1994	++	+	+			
Rubenstein, 1992	++ / ++					
Tang, 2002		++ / ++ / ++				
Nurses						
Alpers, 1996		+ / -				
Flavin, 1997	0					
Frank-Stromborg, 1987		++ / +	+			
Frisch, 1990	++ / 0 / +					
Inglis, 2000		++				
Jeffreys, 1999	++	++	++			
Lasch, 2000	++	++				

Table 6. Results of studies presented by type of outcome for the 34 articles addressing question 2[a] (continued)

	Provider Outcomes			Patient Outcomes		
	Knowledge	Attitudes	Skills	Satisfaction	Patient Adherence	Health Status
Napholz, 1999		+				
Scisney-Matlock, 2000			++ / ++			
Smith, 2001	++	++				
St. Clair, 1999		++ / ++ / +				
Underwood, 1999	+	+ / +	+			
Williamson, 1996	++	++	++			
Mixed healthcare provider groups						
Erkel, 1995	+	+ / + / +				
Gallagher Thompson, 2000	++ / ++		++			
Gany, 1996	++	++				
Way, 2002	+	+ / ++		++		
Other healthcare providers						
Hansen, 2002	++					
Strumphauzer, 1983	++		++			
Wade, 1991				++	++	

a: "++" indicates significant positive effect, "+" indicates positive effect,"–" indicates negative effect, "?" indicates partial/mixed effect, "?" indicates unclear, and "0" indicates no effect. If cell is left blank, then outcome type is not measured for that study. Outcomes separated by "/" indicate more than one outcome type