

## Online supplementary appendix 1: Classification of outcomes

Information about tables: The tables show the outcome data organized across study designs and intervention types. We distinguished between RCTs, observational studies (retrospective, cross-sectional, longitudinal), and qualitative (interviews and focus groups). In terms of intervention types, we distinguished between evaluations of an entire portal [portal]; of one module [module]; and of a program/service (often disease management program) offered via a portal [program]. The outcome data is organized based on the strength of outcomes. For the three study designs, we made the following stratifications:

### RCTs:

- No statistically significant effect\*
- Significant effect, but lacking consistency across different outcome measures and/or population subgroups \*\*
- Significant effect, but not sustained over time\*\*\*
- Statistically significant effect\*\*\*\*

### Observational studies:

- No effect\*
- Statistically significant effect or large effect untested for significance, but inconsistent across patients, measures etc.\*\*
- Statistically significant effect or large effect untested for significance \*\*\*

### Qualitative studies

- Mainly positive effects (Pos)
- No effects (No)
- Mainly negative effects (Neg)

The numbers in the tables correspond to the study ID numbers listed in Online supplementary appendix 2.

	1. Clinical outcomes			2. Health resource consumption			3. Patient adherence		
	Portal	Module	Program	Portal	Module	Program	Portal	Module	Program
<b>RCTs</b>									
****			9; 10	13; 15			15	19; 21	
***			8					20	
**			6; 7	16		7	16		
*	1		11			9			
<b>Observational studies</b>									
***	2	4; 5		14; 17	4		18		
**	3			12 <sup>1</sup>					
*									
<b>Qualitative studies</b>									
Pos.				12 <sup>2</sup>					
No									
Neg.									

12<sup>1</sup> 12<sup>2</sup> A mixed methods approach was used

