Table 2 Implementation strategies of TOP

Name it: ERIC Implementation strategy	**Operationalise it**								
	Action	**Actor**	**Context**	**Dose**	**Action Target**		**Temporality**	**Implementation Outcome**	**Justification**
					Conceptual	**Unit of Analysis**			
Use evaluative and iterative strategies									
Assess for readiness and identify barriers and facilitators	Assessing facilitators for and barriers to implementing the TOP intervention through collected field notes and assessment of determinants of implementation (e.g. resources and attitudes of healthcare professionals - HCPs) through written questionnaires	HCPs (physicians and pharmacists) in the hospitals for data collection through questionnaires, TOP study team for collecting field notes and analysis of the data collected	Assessment and analysis electronically, written questionnaire is sent to the HCP to fill in during the hospital shift	Field notes are collected continuously, data collection with HCP through written questionnaire twice during the study	Context	Hospital-based	Field notes: transition and intervention phases, written questionnaire: control and intervention phases	Barrieres to and facilitators for implementing the TOP intervention	To analyse and control the organisation-related factors which may have an influence on the degree of TOP implementation and the outcomes measured in study setting.

Stage implementation scale-up	For implementing the TOP intervention, there are two hospitals accompanying the study, which will implement the intervention before the C-RCT starts.	Two hospitals accompanying the C-RCT	Pharmacists (and physicians) at the accompanying hospitals implement and test the TOP intervention in routine care	Implementation takes place once in each accompanying hospital	Assistance to implementation	Hospital-based	In the preparation phase of the study (10 months before C-RCT start)	Barrieres to and facilitators for implementing the TOP intervention, necessary adaptations of TOP intervention and its implementation process	TOP is a complex intervention that is to be introduced into routine care for the first time in 12 hospitals. To optimse the implementation process and intervention itself before it is tested in the study.
Provide interactive assistance									
Centralise technical assistance	The two accompanying hospitals provide technical assistance on all issues of implementing the TOP intervention into routine care for hospitals included in the study if questions arise and support is needed.	Pharmacists at the accompanying hospitals in coorperation with the software developer/support team, pharmacists of study hospitals	Support is offered by phone, email and through online meetings	Support is offered as needed, online meetings once a week	Context, implementation and mechanism of impact	Hospital-based	Transition and intervention phases	Barriers and facilitators, adaptations, fidelity, feasibility, response	To support the study hospitals in the best possible implementation of the TOP intervention.

Adapt and tailor to context									
Promote adapta-bility	Tailoring the intervention to the given structures and processes of every study hospital (organisation-specific implementation-plans).	Pharmacists (and physicians) of the accompanying and study hospitals, TOP study team	Remotely by email, phone or in online meetings	Tailoring is offered as needed	Imple-menta-tion and effec-tiveness	Hospital -based	Transition and intervention phases	Adaptations to intervention, fidelity, acceptability	To implement the TOP intervention into routine care, it is necessary to observe and take into account the given stuctures and processes of every health facility because they may differ as a function of the size of the hospital, patients, processes etc..

Develop stakeholder interrelationships									
Organise clinician implementation team meetings	Build structures for an information exchange between the pharmacists (and physicians) at the study hospitals	Pharmacists (and physicians) and key persons at the accompanying and study hospitals, TOP study team	In online meetings, in person	Online meetings with pharmacists once a week, online meetings with study hospitals once a month, and if necessary, in-person meetings (once a year)	Implementation and mechanism of impact	Hospital-based	Transition and intervention phases	Acceptability, appropriateness, feasibility	Use of lessons learned can improve the implementation process and acceptability, appropriateness and feasibility of the intervention.
Train and educate stakeholders									
Conduct educational meetings	Educational meetings are held for key persons and HCPs on different topics (e.g. intervention details like process training, rules for reviewing indications for medication therapy, study details like evaluation of the TOP intervention)	TOP study team, key persons and HCPs at the two accompanying and study hospitals, software developer team	In online meetings, in person	Online meetings with pharmacists once a week, online meetings with study hospitals once a month and as necessary	Implementation	Hospital-based	Established early in control phase of the C-RCT, maintained throughout the C-RCT	Fidelity, acceptability	Educational training is a necessary but insufficient strategy for behavioural change. Building knowledge is important for laying the foundation for the actual application of the intervention components.

Engage consumers									
Use mass media	Information on the TOP intervention is placed in newspapers, information materials (in print and online) by particpating statutory health insurance providers (SHIPs)	SHIPs, TOP study team	In print and online	Established early in preparation phase of the C-RCT, maintained over time	Recruit-ment and imple-menta-tion	Patient-based and hospital-based	Preparation and C-RCT phases	Recruitment and reach of intervention (patient-level)	Receiving information about the TOP intervention could improve patients` commitment to being involved in the study and thus improve the patient-related reach of the intervention.

Utilise financial strategies									
Use capitated payments	TOP intervention is part of a funded project of the G-BA, the hospitals receive financial support (e.g. amount per patient for an intervention delivered to the patient, hospitals receive funds for implementing the TOP software and hiring staff)	SHIPs, Funder: G-BA	Funds are transferred electroni-cally	Payments for financial support per patient are delivered depending on the number of patients recruited for the study, one-off payments for infrastructural support	Imple-menta-tion and mecha-nism of impact	Patient-based and hospital-based	Amount per patient: transition and intervention phases, infrastructural payments: transition phase	Reach of intervention (patient and hospital level), feasibility	Implemen-ting a new form of care is a highly complex process of change in the routine care of the hospitals, which are subject to financial pressure anyway. Financial support is necessary to optimise the implementa-tion and use of new interventions like TOP.