

PHYTOTHERAPY FOR WOMEN WITH UNCOMPLICATED RECURRENT UROCYSTITIS

Authors: Pentz R¹, Emprechtinger R², Laschkolnig A¹, Pfabigan D¹, Soede I¹, Stürzlinger H¹

¹Gesundheit Österreich GmbH (Austrian Public Health Institute), Vienna, Austria; ²State of Health, Imbach, Austria

Correspondence: richard.pentz@goeg.at

Funding: this HTA was commissioned and funded by the German Institute for Quality and Efficiency in Health Care (IQWiG)

Introduction and Research Question

Urocystitis/urinary tract infections (UTIs) affect a large proportion of the female population and some women suffer from recurrent UTIs with several acute episodes per year. Besides substantial burden of disease for the affected individuals, UTIs may impact global health through frequent use of antibiotics and resulting antimicrobial resistances. This health technology assessment (HTA) evaluates the use of phytotherapeutics (PT) for the treatment and prevention of uncomplicated recurrent UTIs in women. The assessment of economic, ethical, social, organizational and legal aspects is focused on the German context.

Methods

The HTA followed the current method manual of the German Institute for Quality and Efficiency in Health Care (IQWiG). A systematic literature search was done in MEDLINE, Embase, Cochrane Databases and HTA Database for the efficacy domain and cost-effectiveness, a focused literature search and hand search for the other domains. Meta-analyses were conducted where possible. Risk of bias of the included RCTs and certainty of the evidence were assessed according to the method manual. Five women suffering from recurrent UTIs were involved through personal interviews to incorporate patient perspectives especially for the ethical and social aspect and the choice of assessed outcomes.

Conclusions

There is evidence (of medium certainty) that in women suffering from uncomplicated recurrent UTIs, preventative intake of cranberry products can reduce recurrence rates. There is currently no data to assess the effect of cranberry products for treatment of acute episodes of UTI in this population. Further research is needed to generate evidence regarding other PTs, to sustain more certain conclusions about cranberry-containing products (including their optimal preparation and dosage) and to consider costs of emerging antimicrobial resistances in economic assessments.

Results

The majority of relevant RCTs studied cranberry (Cb) products. For **prevention of recurrences**, we found a significant **advantage of Cb-products** compared with placebo (Figure 1 and Table 1). However, the studies are mostly of low methodological quality and very heterogeneous regarding study design and studied interventions, reducing the certainty of the evidence. None of the included RCTs investigated the effect of Cb-products on the treatment of an acute episode of UTI (resolution of specific symptoms).

One RCT suggests that Cb-products might prevent recurrences less effectively than an antibiotic treatment (Table 1).

Evidence on PTs other than cranberry is very sparse, few products have been studied in RCTs. The evidence provided by these data is of low certainty (see handout).

The identified economic studies suggest that cranberry prophylaxis might incur higher overall costs than antibiotic prophylaxis but emphasize that the potential costs of emerging antimicrobial resistances could not be estimated.

PT products intended for the treatment of UTIs are widely available in Germany and can be **marketed either as pharmaceuticals or as dietary supplements**. The latter do not require proof of efficacy but are exempted from reimbursement by health insurance. Most of the studied products are marketed as dietary supplements, thus their **costs** - which can amount to between 60 and 320 € for six months of intake - **are largely borne by the patients**. These factors contribute to the complexity of the choice of interventions for the prevention of UTI recurrence, which was emphasized by the interviewed patients.

Figure 1: Meta-analysis of RCTs investigating the effect of Cb-products on recurrence rates

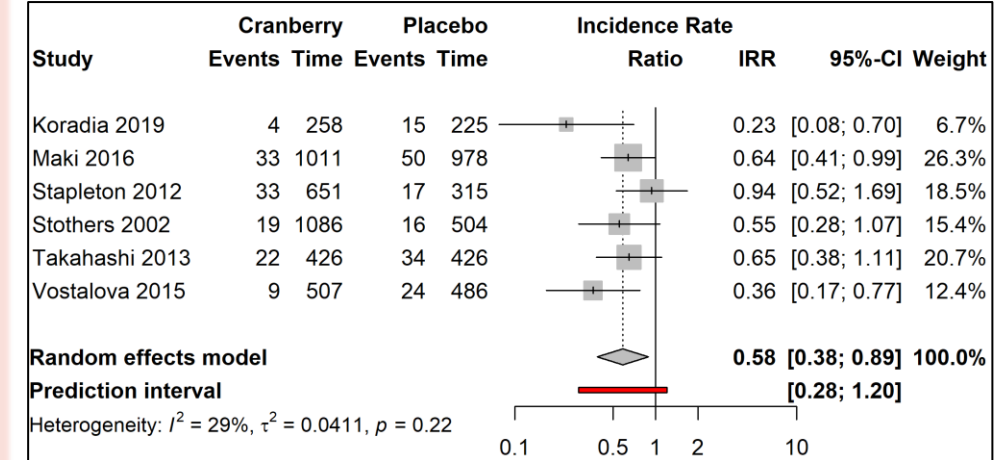


Table 1: Summary of evidence for the comparisons of Cb-products vs. placebo and vs. antibiotics

Comparisons \ Outcomes	Mortality (all causes)	Morbidity					HrQL (SF-36)
		Specific symptoms	Time to recurrence	Recurrence rate	Complicated infections	AEs	
Cb-products vs. placebo							
Cb-products vs. placebo	○○○	-	●○○	●●○	-	○○○	○○○
Cb-products vs. antibiotics							
Cb-product vs. TMP	-	-	○○○	○○○	-	○○○	-
Cb-product vs. TMP-SMX	-	-	●○○	●○○	-	○○○	-
●○○○Low / ●●○○medium certainty of evidence for greater benefit than comparator							
●○○○Low certainty of evidence for lesser benefit than comparator							
○○○○Reported data provides no evidence for greater or lesser benefit							
- No data reported							