**Supplement 1
Box 1** A description of TTM model applied in this study

*Transtheoretical Model of Health Behavior Change (TTM)*
TTM was separated into five categories. Precontemplation was categorized as a prescriber who did not want to follow, or did find applicable, the antibiotic regimen recommended per international/local guidelines for treatment and/or surgical prophylaxis. Contemplation and Preparation stages were categorized as prescribers who may follow international/local guidelines for treatment of organ-specific infection and/or surgical prophylaxis in the next 90 days and 30 days, respectively. Action and Maintenance were categorized as prescribers who already follow international/local guidelines for treatment of organ-specific infection and/or surgical prophylaxis for < 6 months and > 6 months, respectively.

**Box 2** A description of TPB model applied in this study

*Theory of Planned Behavior (TPB)*

TPB was categorized into three domains such as attitude toward behavior, subjective norm, and perceived behavioral control. Each TPB domain was assessed to calculate a cumulative score based on following three equations3:
 $attitude =\sum\_{i=1}^{n}e\_{i}b\_{i}$

Where *e* was outcome evaluation and *b* was behavioral belief;

 $subjective norm =\sum\_{i=1}^{n}n\_{i}m\_{i}$

Where *n* was normative belief and *m* was motivation to comply;
$$perceived behavioral control =\sum\_{i=1}^{n}c\_{i}p\_{i}$$

Where *c* was control belief and *p* was power of control.

Each domain score ranged from 1 to 5, with partition into 5 nominal categories of strongly disagree (score 1), disagree (score 2), neutral (score 3), agree (score 4), and strongly agree (score 5).

**Figure 1.** Relationship between assessments of Theory of Planned Behavior (TPB) domains and Transtheoretical Model of Health Behavior (TTM) stages among prescribers of antibiotics to patients in peri-operative care.

