SUPPLEMENTARY 1: Formulas for data management and analysis.

a. Number of prescriptions surveyed =N

b. Proportion of prescriptions with antibiotics

$$= \frac{\text{(number of all prescription with antibiotics)}}{\text{(total of all surveyed prescriptions)}} \text{x100}$$

c. Proportion (%) of prescription-prescribed single antibiotics

$$= \frac{\text{(number of all prescriptions with single antibiotics)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

d. Proportion (%) of prescriptions for parenteral antibiotics

$$= \frac{\text{(number of all prescriptions with parenteral antibiotics)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

e. Proportion (%) of prescription with antibiotics and indication recorded in notes

$$= \frac{\text{(number of all prescriptions having antibiotics with an indication recorded)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

f. Proportion (%) of prescription-compliant current STG/NEMLIT

$$= \frac{\text{(number of all prescription with antibiotics complying with current STG/NEMLIT)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

g. Proportion (%) of prescription of antibiotics for post-surgical follow-up with a single dose $=$

$$\frac{\text{(number of all prescriptions with antibiotics for post surgical follow up with a single dose)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

h. Proportion (%) of prescription of antibiotics for post-surgical follow-up with duration = 1 day

$$= \frac{\text{(number of all prescription with antibiotics for post surgical follow up with } = 1 \text{ day)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

i. Proportion (%) of prescription of antibiotics for post-surgical follow-up with duration >1 day

$$= \frac{\text{(number of all prescriptions with antibiotics for post surgical follow up with above } > 1 \text{ day)}}{\text{(number of all prescriptions with antibiotics)}} \text{x100}$$

j. Drug utilization 90% (DU90%)

$$\text{DU90\%} = \frac{\text{(number of antibiotic items prescribed using the generic name)}}{\text{(total number of all antibiotic items prescribed)}} \text{X100}$$

k. Average number of antibiotics prescribed per patient

$$= \frac{\text{total number of all antibiotic items prescribed}}{\text{number of all prescriptions with antibiotics}}$$