

Table S1. Detailed Information of the Study Handwashing Sinks

Sink ID	Specific Location (Ward/Functional Area)	Daily Usage Scenarios	Pre-Study Disinfection Frequency	Pipe Connection Type
S1	General PICU (Bedside Area, Bed 1–5)	Healthcare worker handwashing, patient care tool rinsing	Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	PVC U-shaped trap
S2	General PICU (Treatment Room)	Instrument cleaning (non-invasive), waste liquid pouring	Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	Stainless steel single-bend trap
S3	General PICU (Staff Lounge)	Healthcare worker handwashing, drinking water preparation	Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	PVC U-shaped trap
S4	NICU (Neonatal Care Unit, Bed 6–10)	Neonatal care tool rinsing, healthcare worker handwashing	Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	Stainless steel U-shaped trap
S5	NICU (Isolation Room)	Isolated neonatal care tool cleaning, waste liquid disposal	Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	PVC single-bend trap
S6	NICU (Medication Preparation Room)	Medication preparation tool rinsing,	Twice daily (08:00, 18:00) with tap water	Stainless steel U-shaped trap

Sink ID	Specific Location (Ward/Functional Area)	Daily Usage Scenarios	Pre-Study Disinfection Frequency	Pipe Connection Type
S7	General PICU (Emergency Treatment Area)	handwashing before medication preparation Emergency patient care tool cleaning, handwashing during emergencies Neonatal feeding tool	flushing (no chemical disinfectant) Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant) Twice daily (08:00, 18:00) with tap water flushing (no chemical disinfectant)	PVC single-bend trap
S8	NICU (Feeding Preparation Room)	rinsing, formula preparation equipment cleaning Supply tool	with tap water flushing (no chemical disinfectant)	Stainless steel single-bend trap
S9	General PICU (Supply Storage Room)	cleaning, waste liquid pouring from storage containers		