Supplemental Tables for Therapeutic Drug Monitoring

Optimal Sampling Strategy and Threshold of Serum Vancomycin Concentration in Elderly Japanese Patients undergoing High-flux Hemodialysis

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Supplemental Table S1. Clinical outcomes and safety after VCM administration in each patient

Case No.	Clinical outcome of the attending physician's judgment within 30 days after the start of VCM treatment	Recurrence of MRSA infection within 60 days after discontinuation of treatment	Changes in the laboratory values after the initiation of VCM treatment
1	Improvement	-	-
2	Cure	-	-
3	Death after 14 days	-	RBC, Ht, PLT, AST, CK
4	Cure	-	-
5	Cure	-	-
6	Unchanged	-	T-Bil
7	Cure	-	-
8	Cure	-	-
9	Unchanged	Recurrence after 43 days	AST

VCM, vancomycin; RBC, red blood cell; Ht, hematocrit; PLT, platelet; AST, aspartate aminotransferase; CK, creatine kinase; T-Bil, total bilirubin

Supplemental Table S2. Correlation coefficients between AUC_{24h} and VCM dose or HD conditions

Variable		AUC_{0-24}		AUC_{24-48}	
		R	P-value	R	P-value
VCM dose (mg/kg)					
Day 1 dose (mg/kg)		0.537	0.136	0.408	0.276
Day 2 dose (mg/kg)		0.402	0.429	0.216	0.681
Day 1 + Day 2 dose (mg/kg)		0.281	0.463	0.330	0.386
Maintenance dose (mg/kg)		0.537	0.136	0.408	0.276
HD conditions					
Dialysis membrane area (m^2)	1st HD	0.249	0.517	0.337	0.375
	2nd HD	0.249	0.517	0.337	0.375
Dialysis time (h)	1st HD	−0.193	0.619	−0.136	0.727
	2nd HD	−0.256	0.506	−0.396	0.292
Average blood flow rate (mL/min)	1st HD	−0.168	0.666	−0.249	0.517
	2nd HD	0.056	0.885	0.138	0.723
Total water removal (mL)	1st HD	−0.124	0.750	−0.203	0.600
	2nd HD	0.142	0.716	−0.025	0.949
VCM removal rate (%)	1st HD	0.108	0.782	0.002	0.996
	2nd HD	0.098	0.801	0.202	0.603

Pearson product-moment correlation coefficient test. VCM, vancomycin; HD, hemodialysis; AUC, area under the concentration-time curve; AUC_{0-24}, AUC calculated for 24 h after the end of the 1st HD; AUC_{24-48}, AUC calculated for 24 h before the end of the 2nd HD; R, correlation coefficient; Day 1, the first day of VCM administration; Day 2, the second day of VCM administration

Supplemental Table S3. Correlation coefficients between AUC_{24h} and serum VCM concentration at each sampling point

Variable	AUC_{0-24}		AUC_{24-48}	
	R	*P*-value	*R*	*P*-value
$C_{pre(HD1)}$	0.756	0.018	0.768	0.016
$C_{end(HD1)}$	0.618	0.076	0.705	0.034
C_{peak}	0.972	<0.001	0.809	0.008
C_{24h}	0.967	<0.001	0.983	<0.001
$C_{pre(HD2)}$	0.806	0.009	0.965	<0.001
$C_{2h(HD2)}$	0.739	0.023	0.780	0.013
$C_{end(HD2)}$	0.543	0.131	0.568	0.111

Pearson product-moment correlation coefficient test. AUC, area under the concentration-time curve; AUC_{0-24}, AUC calculated for 24 h after the end of the 1st HD; AUC_{24-48}, AUC calculated for 24 h before the end of the 2nd HD; *R*, correlation coefficient