

A SIMPLE AND RAPID UHPLC-MS/MS METHOD FOR MEASUREMENT OF HYDROXYCHLOROQUINE IN SALIVA

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INTRODUCTION

LC-MS/MS is the gold standard measurement technique for therapeutic drug monitoring (TDM)¹. Hydroxychloroquine (HCQ) blood levels are related to clinical efficacy in Systemic Lupus Erythematosus². Saliva is emerging as an alternative matrix in TDM³. Therefore, we developed and validated a LC-MS/MS method to measure HCQ in saliva.

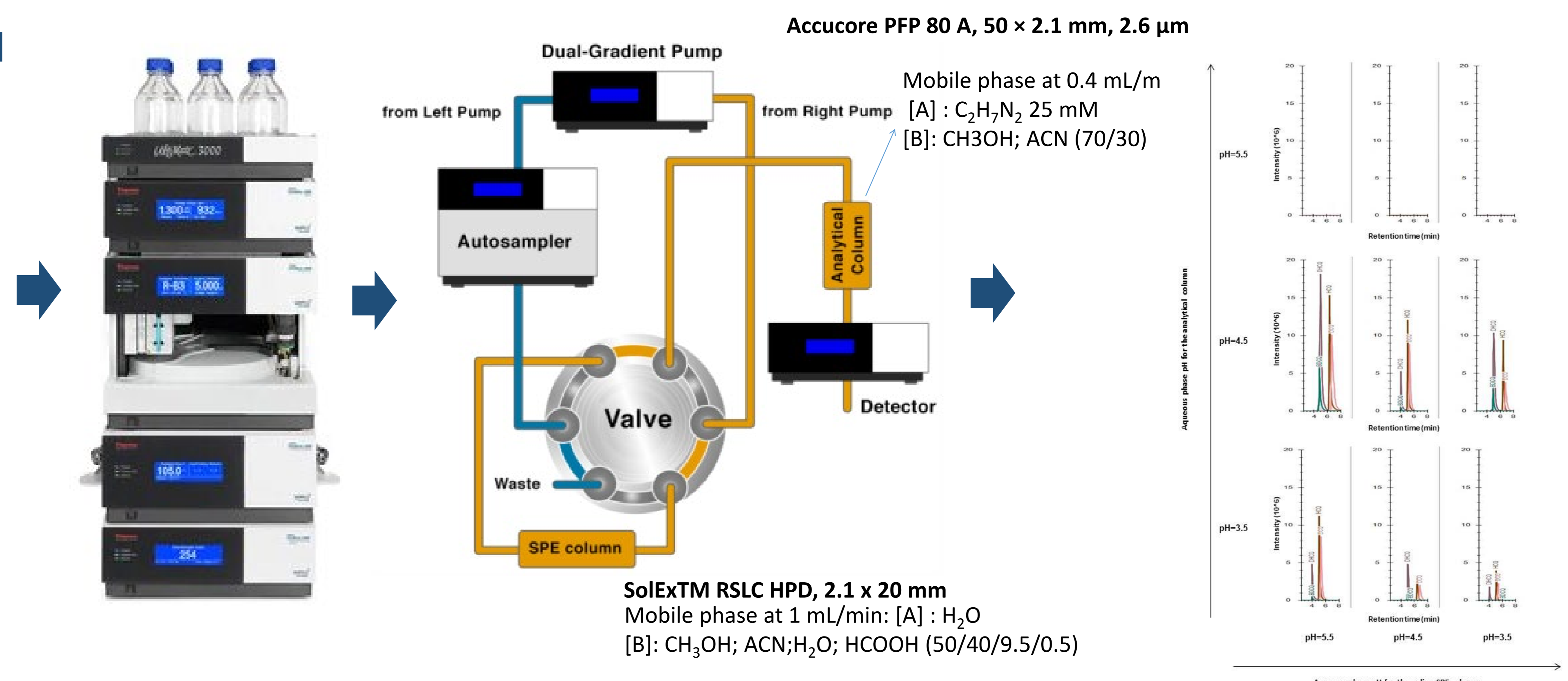
CONCLUSION

The UHPL-MS/MS method for measurement of HCQ in saliva was successfully developed, validated and can be applied for TDM and pharmacokinetic studies.

METHOD

SAMPLE PREPARATION

90 µL of saliva
+
10 µL of 500 ng/mL IS (HCQ-d4)
+
100 µL of H₂O
↓
Centrifuged 8000 rpm, 10 min
↓
40 µL of supernatant injected



RESULTS

Parameter	Unit	Value	Parameter	Unit	Value
HCQ Retention time	minutes	6.33	Intra-day precision		
HCQ-d4 Retention time	minutes	6.33	80 ng/mL	% CV	1.1
Linearity	ng/mL	0.5-100	15 ng/mL	% CV	1.5
r ²	-	> 0.99	2 ng/mL	% CV	1.9
LLOD	ng/mL	0.045	Inter-day precision		
LLOQ	ng/mL	1.0	80 ng/mL	% CV	14.4
Accuracy	% bias	< 20	15 ng/mL	% CV	5.1
Recovery	%	> 96	2 ng/mL	% CV	15.1

Acknowledgement

