Supplementary Table 1: Literature Review of Studies Assessing Salivary Cortisol in AST						
Study	**Participants**	**ACTH Stimulation Test (AST) Protocol**	**Serum Cortisol Assay and Cut-off**	**Salivary Cortisol Assay**	**Relationship between Serum and Salivary Cortisol**	**Salivary Cortisol Cut-off**
Albert, 2019.[30]	45 healthy volunteers, 39 AI, 39 decompensated cirrhosis	• IV 250mcg AST • Serum and salivary cortisol measured at 0, 30, 60, 90 minutes	Roche immunoassay; Serum cortisol > 248 nmol/L at 0 minutes, > 497 nmol/L at 60 minutes, or increase between 0 minute and 60 minute samples > 248 nmol/L	Electrochemi-lumiscence assay	R=0.79, $P<0.01$	0 minute < 2.2 nmol/L 60 minutes < 39.5 nmol/L Rise in salivary cortisol < 27.6 nmol/L (Sn/Sp not reported)
Chao, 2019.[31]	21 healthy children	• IV or IM 250mcg AST • Serum and salivary cortisol measured at 0 and 45 minutes	Immunoassay; Complete AI: peak serum cortisol < 275 nmol/L Partial AI: peak serum cortisol 275 - 497 nmol/L	LC-MS	$R^2=0.96$	Peak salivary cortisol >13.8 nmol/L (sensitivity 100%, specificity 100%)
Contreras, 2004.[26]	21 healthy volunteers, 19 AI	• IM 12.5mcg, 25mcg, 250mcg AST • Serum cortisol measured at 0 and 30 minutes • Salivary cortisol measured at 0, 15, 30, 45, 60, 75, 90, 105, 120 minutes	Radio-immunoassay; Serum cortisol ≥ 552nmol/L	Radio-immunoassay	R=0.099, $P=0.665$	Salivary cortisol >20 nmol/L 30 minutes after AST (based on healthy subjects; Sn/Sp not reported)
Cornes, 2015[16]	36 suspected AI	• AST performed in afternoon	Roche immunoassay	LC-MS	$R^2=0.6037$	Peak salivary cortisol ≥15nmol/L

		• IV 250mcg AST • Serum and salivary cortisol measured at 30 and 60 minutes	Peak serum cortisol ≥ 550nmol/L			(Sn/Sp not reported)
Deutschbein, 2009.[25]	21 healthy volunteers, 55 AI	• IV 250mcg AST • Serum and salivary cortisol measured at 0, 30, 60, 90, 120 minutes	Centaur immunoassay; ITT peak cortisol ≥ 500 nmol/L	Radio-immunoassay	R=0.88 *P*<0.001	Salivary cortisol at 30 minutes: >32.5 nmol/L (sensitivity 72%; specificity 86%)
Dušková, 2016.[17]	15 healthy men	• IV 1, 10, 250mcg AST • ITT	LC-MS	LC-MS	NA	Peak salivary cortisol ≥12.5 nmol/L (healthy subjects)
Elbuken, 2014.[32]	44 healthy volunteers	• IV 1, 250mcg AST • Serum and salivary cortisol measured at 0, 30, 60 minutes (for 1mcg AST) and 0, 30, 60, 90 minutes (for 250mcg AST)	Radio-immunoassay	Immunoassay	NA	Peak salivary cortisol ≥ 5.8 nmol/L (1mcg AST) or ≥ 23.4 nmol/L (250mcg AST) (healthy subjects)
Elder, 2018.[18]	35 healthy volunteers	• IV 1, 250mcg AST • 1mg dexamethasone given the night before and morning of AST • Serum and salivary cortisol measured from 0 to 120 minutes	Abbott Architect immunoasasy	LC-MS	R=0.82, *P*<0.001	NA
George, 2020.[29]	67 suspected AI	• IM 30u porcine corticotrophin • Salivary cortisol measured at 0, 60, 120 minutes	Roche II immunoassay; peak serum cortisol ≥ 500 nmol/L	Electrochemi-luminescence	R=0.88, *P*<0.001	Peak salivary cortisol: 60 mins: >18.5 nmol/L (sensitivity 97%, specificity 97%); 120 minutes: > 29.3 nmol/L (sensitivity 100%, specificity 93.4%)
Kim, 2020.[23]	120 suspected AI	• IV 250mcg AST • Serum and salivary cortisol at 0, 30, 60	Packard Cobra Gamma Counter analyzer RIA;	EIA (Salimetrics)	R=0.750, *P*<0.001	Peak salivary cortisol >13.2 nmol/L (sensitivity 90.7%; specificity 94.1%).

			serum cortisol >496.8 nmol/L			
Kosák, 2014.[27]	84 suspected AI	• IV 250mcg AST • Serum and salivary cortisol at 0, 30, 60 minutes	Radio-immunoassay; Peak cortisol > 500 nmol/L	Immunoassay	R=0.773, $P<0.001$	Peak salivary cortisol >27.54 nmol/L (Sn/Sp not reported)
Langelaan, 2018.[19]	129 suspected AI	• IV 250mcg AST • Serum and salivary cortisol measured at 0, 30, 60 minutes	Roche immunoassay Cortisol 1: ≥ 550 nmol/L Cortisol 2: ≥ 420 nmol/L	LC-MS	NA	Peak salivary cortisol: 0 minutes: ≥5.9 nmol/L 30 minutes: ≥17.2 nmol/L 60 minutes: ≥15.6 nmol/L (Sn/Sp not reported)
Mak, 2017.[20]	56 healthy volunteers 171 suspected AI	• IV 1mcg AST • Serum and salivary cortisol measured at 0, 30, 60 minutes	Abbott Architect immunoassay Peak serum cortisol ≥376 nmol/L	LC-MS	R=0.779	Peak salivary cortisol ≥8.6 nmol/L (sensitivity 84.7%, specificity=94.6%)
Marcus-Perlman, 2006.[28]	14 healthy volunteers, 14 women (pregnant or on OCP), 10 AI	• IV 1mcg AST • Serum and salivary cortisol at 0, 30, 60 minutes	Roche immunoassay; peak cortisol > 496.8 nmol/L	Radio-immunoassay	R=0.74	Serum cortisol at 30 minutes >24.28 nmol/L (Sn/Sp not reported)
Nolan, 2017.[21]	24 healthy volunteers 10 healthy women on OCP 87 suspected AI	• IV 250mcg AST • Serum and salivary cortisol measured at 0, 30, 60 minutes	Beckman DxI800 immunoassay; peak serum cortisol ≥500 nmol/L	LC-MS	NA	Peak salivary cortisol ≥26 nmol/L (Sn/Sp not reported)
Perogamvros, 2010.[22]	78 suspected AI	• IM 250mcg AST (n=68) • ITT (n=10)	Siemens Centaur immunoassay; Peak serum cortisol >500 nmol/L	LC-MS	$R^2=0.83$, $P<0.001$	Peak salivary cortisol >8.3 nmol/L (sensitivity 100%, specificity 100%)

| Raff, 2008.[33] | 28 hospitalised patients with low serum albumin, suspected AI | • IV 5mcg or 250mcg AST
• Serum and salivary cortisol at 30 minutes | Centaur immunoassay; serum cortisol > 497 nmol/L 30 minutes after AST | Enzyme-linked immunoassay | NA | NA |

AI: adrenal insufficiency
OCP: oral contraceptive pills
EIA: enzyme immunoassay
LC-MS: liquid chromatography mass spectrometry