

Supplementary Figure 1. Example of clinical vignette generated from patient cohort and used for case-status assessment by clinician-experts

66 year-old Female reports the following symptoms:

- presence of dry eyes
- presence of dry mouth
- presence of joint pain or swelling

Physical examination reveals the following signs:

- presence of parotid enlargement (unilateral or bilateral)
- absence of Raynaud's phenomenon
- presence of polysynovitis
- absence of purpura

Test results are as follows:

Serology

- ANA: 1:640
- RF: positive
- Anti-Ro (SSA): negative
- Anti-La (SSB): negative
- IgG: 820 mg/dL (8.2 g/L)
- C3: 128 mg/dL
- C4: 18 mg/dL

Ocular evaluation

- Right eye schirmer: 6 mm/5min
- Left eye schirmer: 3 mm/5min
- Right eye OSS: 6
- Left eye OSS: 4

Oral evaluation

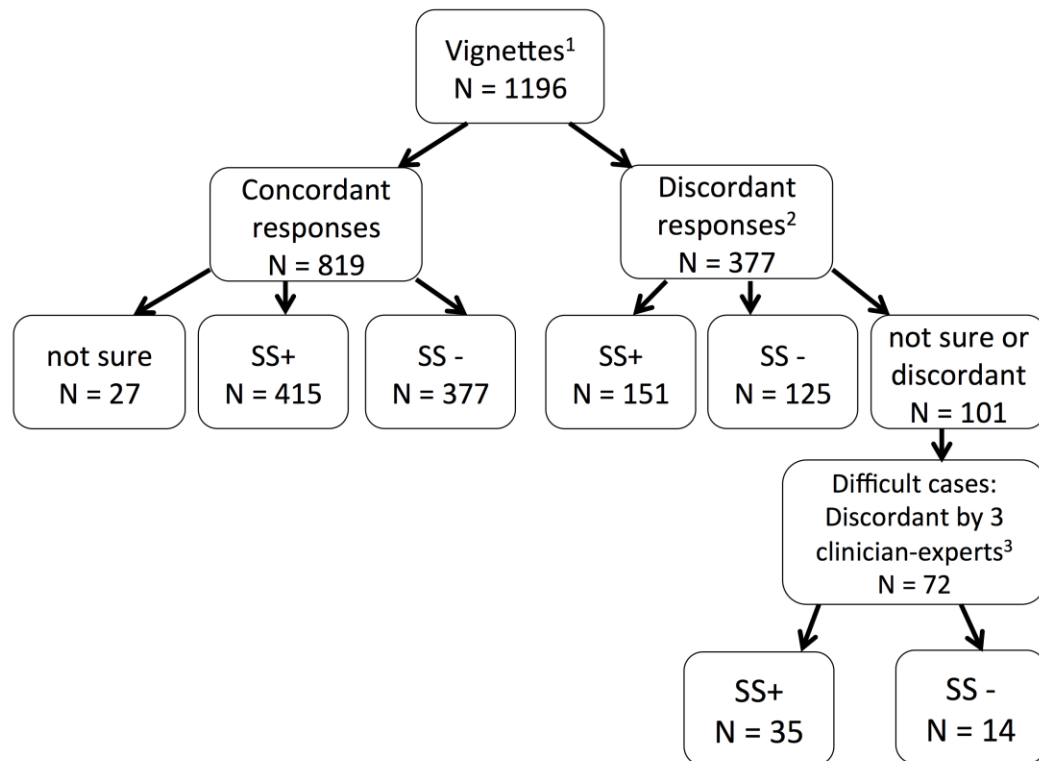
- UWS flow rate: 0.105 mL/min
- Labial salivary gland biopsy with focus score: 1.4

From this clinical vignette, do you think this patient has Sjögren's syndrome?

* must provide value

- Yes No Not sure

Supplementary Figure 2. Case status assessment by clinician experts (CE) in development and validation cohorts through three rounds of vignette surveys.



¹ For the first round of surveys 1196 vignettes were randomly divided across 26 surveys (each containing 46 vignettes), each assigned to two clinician experts (CE)

² The 377 vignettes with discordant responses were included in a second round of nine surveys assigned to nine CE, providing a third response to each discordant vignette

³ Vignettes with three discordant responses (yes, no, and not sure), were included in a third round of surveys administered to eight CE, and defined as SS cases if the majority of CE (5/8) responded “yes” to a vignette, and as non-SS controls if the majority (5/8) responded “no” to a vignette