Table 3

Differential diagnoses	
Hypothalamic amenorrhoea	Low oestrogen caused by an underactive hypothalamus or pituitary e.g. due to extreme weight loss (reduced calorie intake or excessive exercise), or emotional stress
Hyperprolactinaemia	This is usually caused by excess secretion of prolactin from the pituitary gland. Other rare causes include ectopic secretion associated with pituitary tissue in the pharynx, bronchogenic carcinoma, renal cell carcinoma, gonadoblastoma and amenorrhoea, and hyperprolactinaemia due to a prolactinoma in the wall of an ovarian dermoid cyst
Polycystic ovarian syndrome	It is important to note that PCOS is not associated with low oestrogen
Primary ovarian failure	High levels of gonadotrophins because of a lack of ovarian response (depleted stores or dysfunction of the ovary)