

**Table S1.** Specific diagnoses and medications used to identify males with a *known pre-existing risk factor* to their gynecomastia diagnosis

Category	Included separate causes
Medications	Metoclopramide Aldosterone antagonists Estrogens hCG Cloiphene citrate Testosterone-5-alpha reductase inhibitors Imidazole derivative (Ketoconazole)
Testosterone deficiency	Primary Hyper/hypo testicular dysfunction Orchitis and epididymitis Gonadal dysgenesis Secondary Thyrotoxicosis Any thyroid disease Diseases of the pituitary gland Pituitary adenoma Hyperprolactinemia Hypogonadotropic hypogonadism Hyperfunction of the pituitary gland Hormone disturbance in puberty Mixed Hyperthyroidism Hypothyroidism CAIS
Klinefelter syndrome	Klinefelter
Kennedy syndrome	Kennedy syndrome
Cushing syndrome	Cushing syndrome
Liver insufficiency	Liver cirrhosis (including alcoholic cirrhosis)
Kidney insufficiency	Infections of the kidney Renal disease
Malignant neoplasm	Malignant neoplasm of breast Malignant neoplasm of testis Prostate cancer Malignant neoplasm of adrenal gland Malignant neoplasm of other endocrine glands
Alcohol addiction	Alcohol addiction
Obesity	Obesity not specified as of endocrine origin
Cannabis addiction	Cannabis abuse