**Table S2.** Criteria for inclusion and exclusion of patients in the study

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| **Common criteria for inclusion in groups 1-4:** |
| Male and female.  Age: 18 and older.  Signed informed consent, approved by the local ethics committee of the Endocrinology Research Centre, Ministry of Health of Russia, Moscow, Russia (protocol .17 and date of approval 27 September 2017). |
| **Additional criteria for inclusion in group 1:** |
| At least two major components of APS-1 and/or mutation in the *AIRE* gene. |
| **Additional criteria for inclusion in group 2:** |
| Autoimmune thyroiditis: Elevated levels of antibodies to TPO, TG and/or TSHR; signs of autoimmune lesion on thyroid ultrasound and/or medical history (in the case of Graves' disease). |
| Autoimmune diabetes mellitus: the onset of the disease from a young age, and/or an increased level of antibodies to GAD-65, ZnT8, IA2, IAA and/or ICA. |
| Hypergonadotropic hypogonadism of autoimmune genesis: the acquired form is excluded. |
| Primary autoimmune adrenal insufficiency: the acquired form is excluded. |
| **Additional criteria for inclusion in group 3:** |
| No criteria for inclusion in groups 1-3 (according to the survey). |
| Non-autoimmune thyroid disease: normal level of AT to TPO, TG, and/or TSHR; no signs of autoimmune damage according to ultrasound of the thyroid gland; intact thyroid gland; lack of concomitant autoimmune diseases. |
| Non-autoimmune diabetes mellitus: normal levels of antibodies to GAD-65, ZnT8, IA2, IAA, and/or ICA; intact pancreas; lack of concomitant autoimmune diseases. |
| Non-autoimmune hypergonadotropic hypogonadism: intact ovaries, testes; lack of concomitant autoimmune diseases. |
| Non-autoimmune adrenal insufficiency: intact adrenal glands, normal level of AT to 21-OH; lack of concomitant autoimmune diseases. |
| Non-autoimmune parathyroid disease: absence of concomitant autoimmune diseases and intact parathyroid gland. |
| **Additional criteria for inclusion in group 4:** |
| Absence of endocrine (autoimmune and non-autoimmune) pathology (according to the survey). |
| **Criteria for exclusion (all groups):** |
| Pregnancy, lactation.  Acute infections.  Severe, life-threatening conditions: decompensation of chronic heart failure, chronic kidney disease C3b or more, pulmonary and liver failure, mental illness.  Other immune system pathology (including congenital and acquired immunodeficiencies, hypersensitivity reactions).  Taking drugs that affect immune system function (interleukins, interferons, immunoglobulins, immunosuppressants, cytostatics) for 6 weeks before inclusion in the study. Vaccinations/revaccinations within a month before inclusion in the study. |