DESORDRES HORMONAUX ET INFERTILITES

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Agenda

- Brief overview of infertility
- Understanding the reproductive hormonal axis
- Approach to an infertile couple
- Case study: hyperprolactinaemia

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Definition

- Inability to conceive after 12 months of having sexual intercourse with average frequency (2 to 3 times per week), without the use of any form of birth control

- The chances of conceiving in any given menstrual cycle is less than 20%

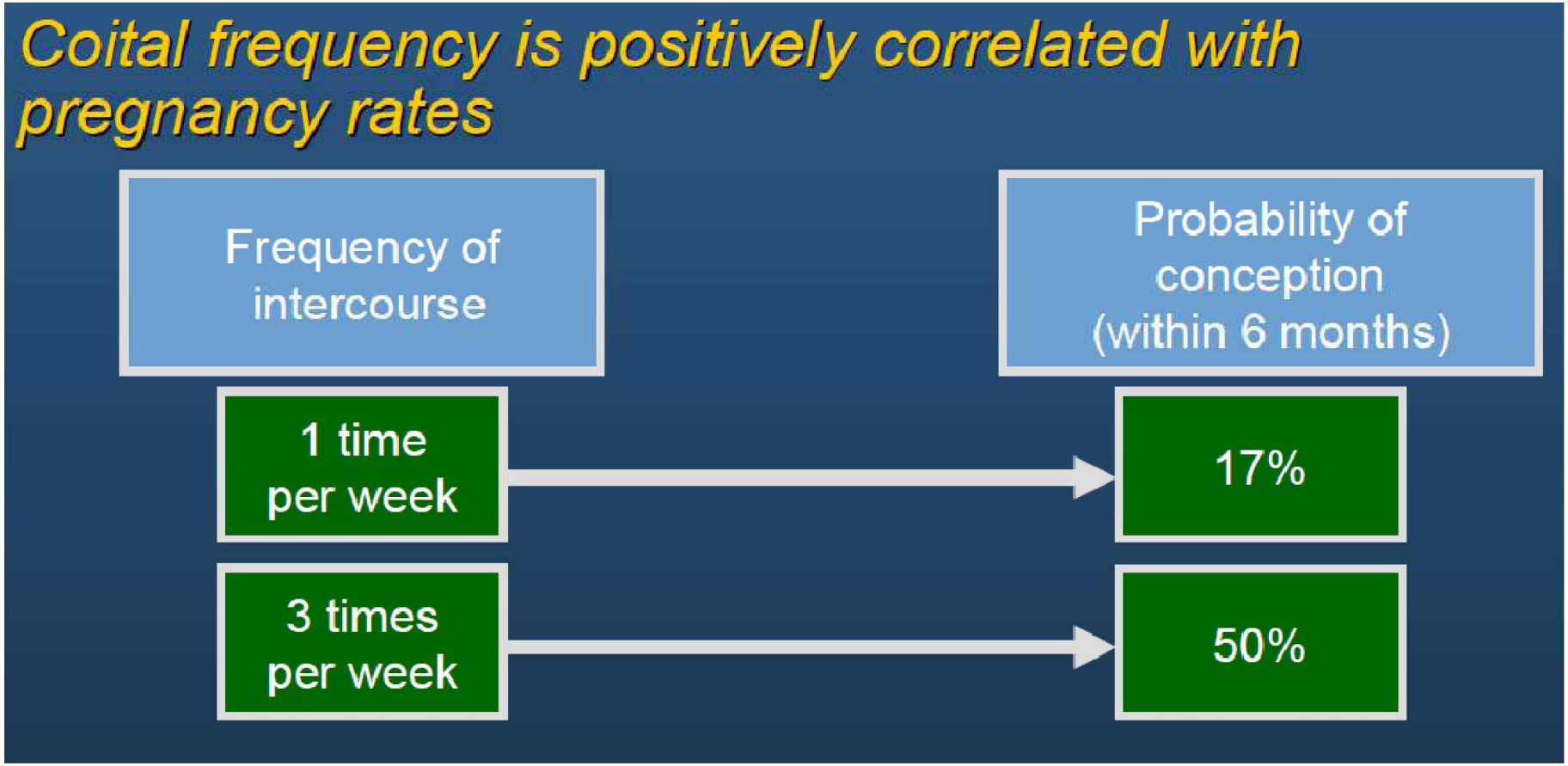
- Main events necessary for pregnancy to occur are:
  - Ovulation
  - Fertilization
  - implantation

Types

- ❑ Primary infertility
  - couple has never produced a pregnancy

- ❑ Secondary infertility
  - – woman has previously been pregnant, regardless of the outcome, and now is unable to conceive

Factors affecting fertility



Courtesy: unknown author

Epidemiology

20-40% of couples will have multiple causes

Female - about 60%

- Tubal - 35%
- Ovulatory - 15%
- Cervical - 5%
- Other - 5%

Epidemiology

20-40% of couples will have multiple causes

Male - 35-40%

- Azoospermia
- Compromised spermatogenesis

Epidemiology

20-40% of couples will have multiple causes

Couple

- Age (rates vary with female age)
- Sexual life, i.e. frequency
- Cigarette smoking - delays time to conception

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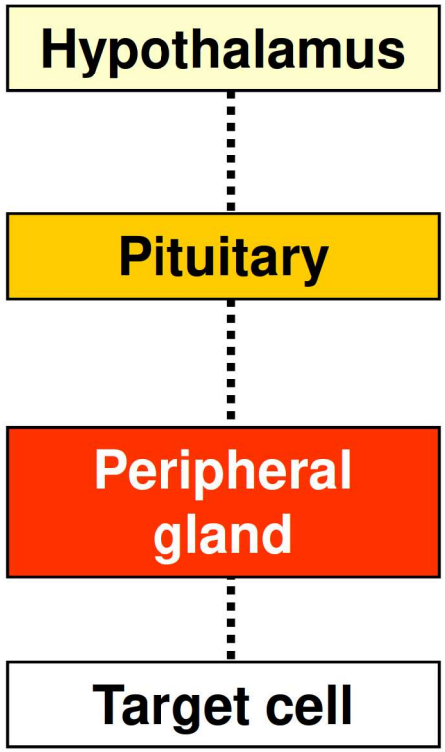
Basic Principles

Hierarchy of endocrine system

3 level signaling



---------- Liberins

---------- Anterior pituitary hormones (Tropins)

---------- Peripheral hormones

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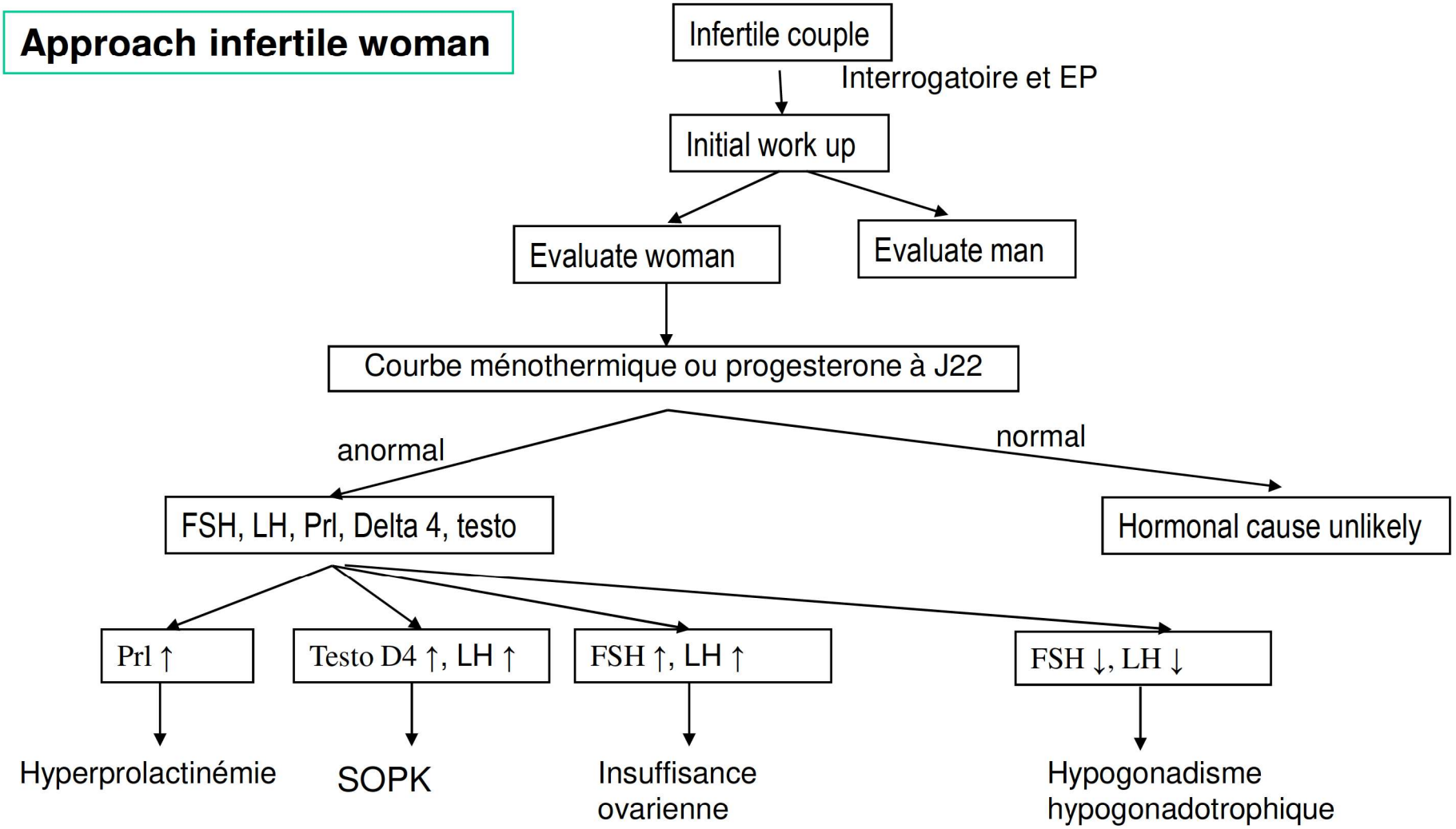
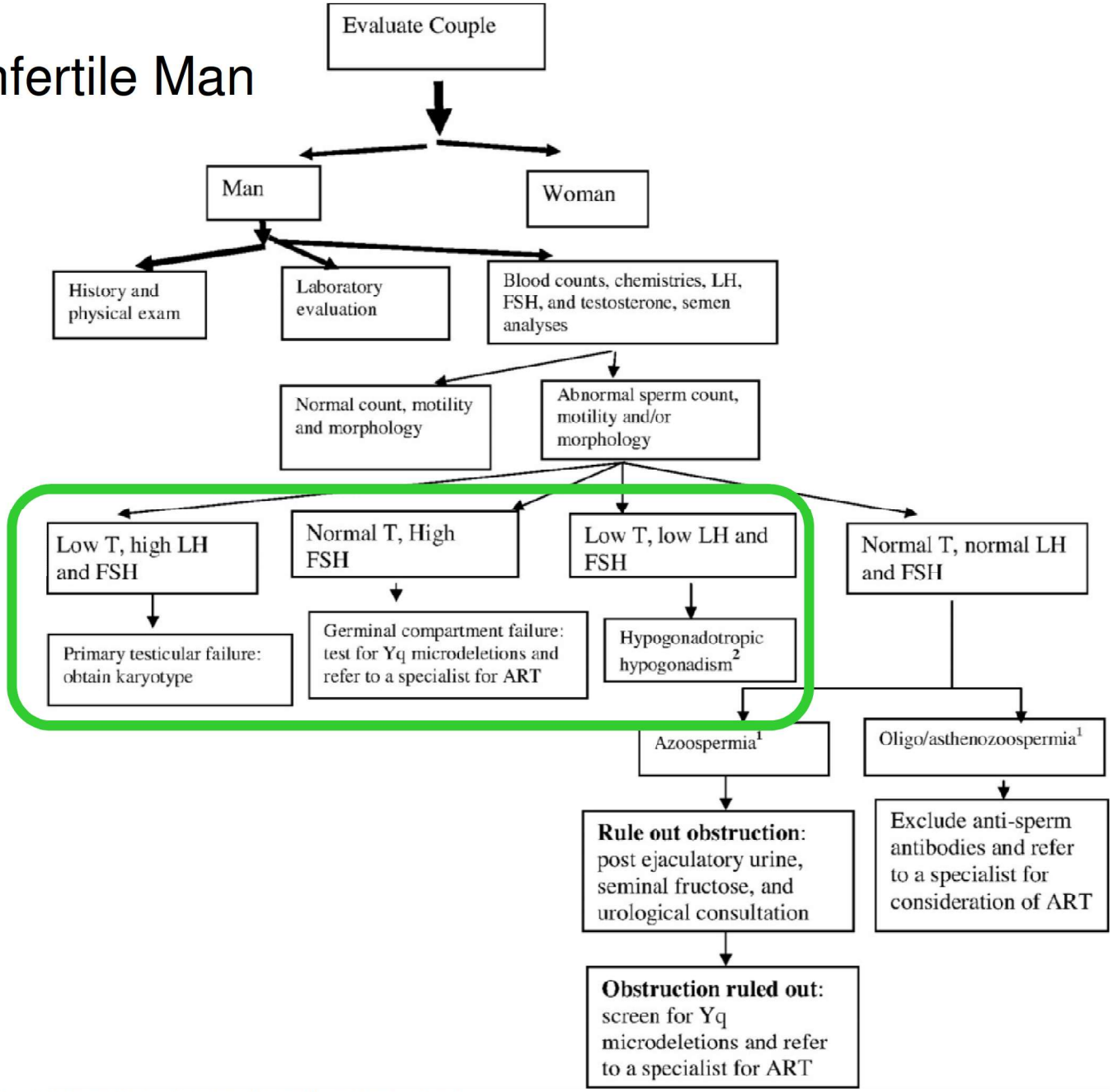
Approach infertile woman



Approach to the Infertile Man



J Clin Endocrinol Metab. 2007;92(6):1995-2004. doi:10.1210/jc.2007-0634

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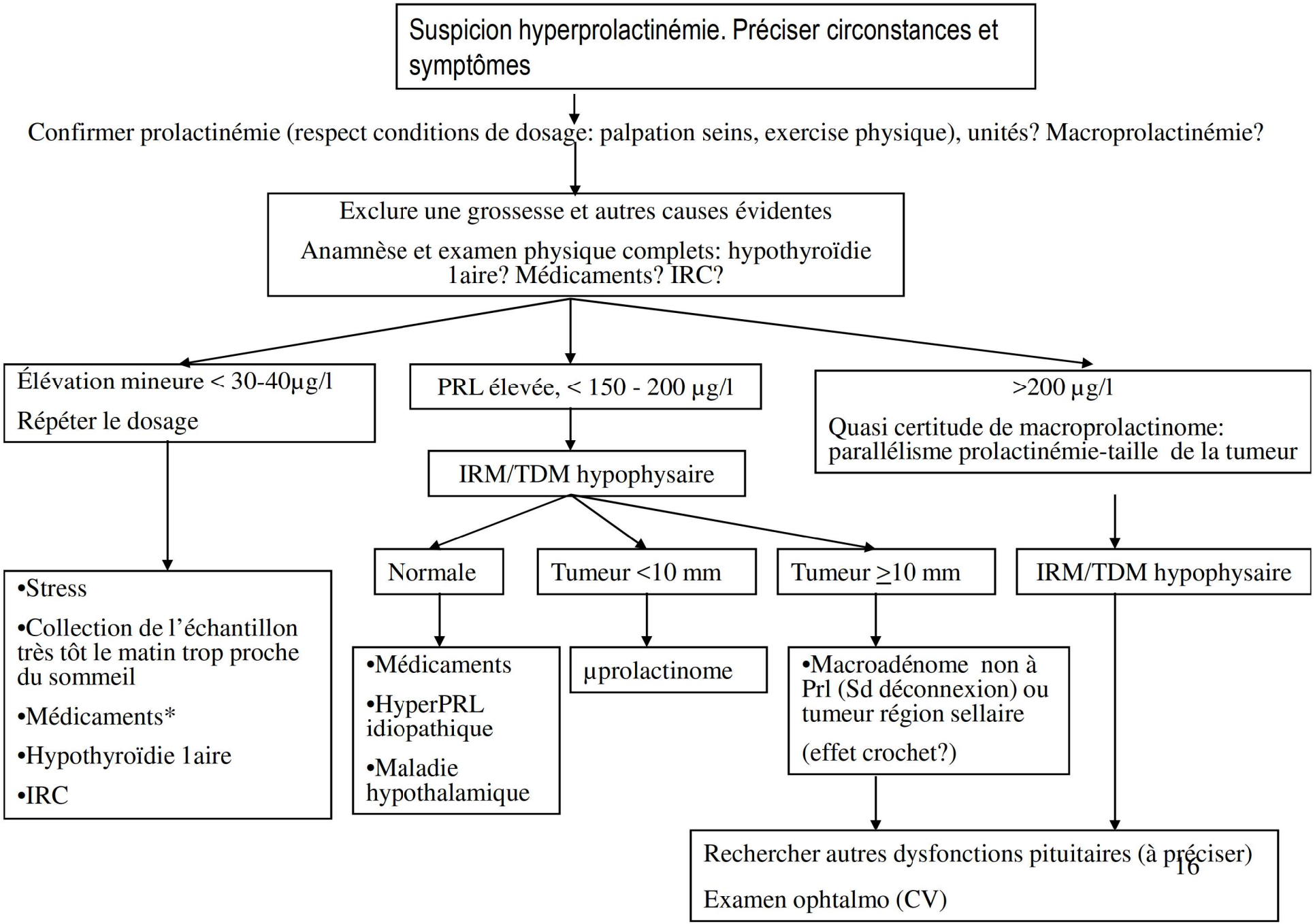
Suspicion hyperprolactinémie. Préciser circonstances et symptômes
Confirmer prolactinémie (respect conditions de dosage: palpation seins, exercise physique), unités? Macroprolactinémie?
Exclure une grossesse et autres causes évidentes
Anamnèse et examen physique complets: hypothyroïdie 1aire? Médicaments? IRC?
Élévation mineure < 30-40µg/l
Répéter le dosage
PRL élevée, < 150 - 200 µg/l
>200 µg/l
Quasi certitude de macroprolactinome: parallélisme prolactinémie-taille de la tumeur
IRM/TDM hypophysaire
•Stress
•Collection de l'échantillon très tôt le matin trop proche du sommeil
•Médicaments*
•Hypothyroïdie 1aire
•IRC
Normale
Tumeur <10 mm
Tumeur ≥10 mm
IRM/TDM hypophysaire
•Médicaments
•HyperPRL idiopathique
•Maladie hypothalamique
µprolactinome
•Macroadénome non à Prl (Sd déconnexion) ou tumeur région sellaire
(effet crochet?)
Rechercher autres dysfonctions pituitaires (à préciser)
Examen ophtalmo (CV)