Figure 1: Questionnaire used for the survey

Society for Promotion of Education in Endocrinology and Diabetes

Thyroid clinical practices among doctors survey

The idea of this survey is to determine the clinical practice preferences of doctors across different specialties in our city. This will help us in better framing of thyroid update programs in the future, addressing the specific needs and desires. It takes approximately 5 min to complete thirty questions. Your answers will remain strictly confidential. As you answer the questions please consider recent patients you have treated, as this research survey is intended to assess actual current practices rather than idealized approaches. Please assume that the patient wants to defer to your judgment as to the preferred approach.

INDEX CASE: A 52-year-old woman presents with a 9-month history of fatigue, cold intolerance, poor concentration, and constipation. She is otherwise healthy, takes no medications, and does not smoke cigarettes. She has a blood pressure of 135/90 mmHg, a pulse rate of 55 beats per minute, and weighs 132 pounds (60 kg). She has a firm goiter, approximately twice normal size. Serum TSH is 20 mU/L (normal 0.4–4.5 mU/L), and free T4 is 0.7 ng/dL (normal 0.8–1.8 ng/dL).

1. Which of the following tests do you obtain in the majority of patients such as the index case? (Please check all that apply)
   a. Repeat Free T4
   b. Repeat TSH
   c. Total T3
   d. Free T3
   e. Autoantibodies (Antithyroid/Antithyroglobulin antibodies)
   f. Lipid panel
   g. Thyroid ultrasound

2. Would you start this patient on thyroid hormone therapy at this time? Assume repeat labs (if obtained) are unchanged.
   a. Yes
   b. No

3. What would be your general strategy for correcting hypothyroidism in the index case?
   a. Full calculated replacement dose
   b. Gradual restoration of euthyroidism, starting with a low dose.
   c. Empiric dose to achieve target levels

4. What form of thyroid hormone would you use?
   a. Levothyroxine generic
   b. Levothyroxinespecific brand
   c. Levothyroxine plus liothyronine (LT3)
   d. Thyroid extract

5. Which of the following increments of LT4 would you use?
   a. 12.5 µg
   b. 25 µg
   c. 50 µg
   d. 100 µg

6. How long would you wait between dose increases when gradually restoring euthyroidism?
   a. 2 weeks
   b. 4 weeks
   c. 6 weeks
   d. 8 weeks (2 months)
   e. 12 weeks (3 months)
7. What would be your starting dose of levothyroxine in this patient?
   a. 25 µg daily (0.42 mcg/Kg)
   b. 50 µg daily (0.83 mcg/Kg)
   c. 75 µg daily (1.25 mcg/Kg)
   d. 100 µg daily (1.67 mcg/Kg)
   e. 112 µg daily (1.87 mcg/Kg)
   f. 125 µg daily (2.08 mcg/Kg)
   g. 137 µg daily (2.28 mcg/Kg)
   h. 150 µg daily (2.50 mcg/Kg)

8. When starting or changing the dose of thyroid hormone, how soon do you first check thyroid labs?
   a. 2 weeks
   b. 4 weeks
   c. 6 weeks
   d. 8 weeks
   e. 12 weeks (3 months)
   f. 26 weeks (6 months)
   g. 52 weeks (12 months)

9. Which of the following labs would you obtain at follow up testing? (Please check all that apply.)
   a. T3
   b. Free T3
   c. T4
   d. Free T4
   e. TSH
   f. Thyroid peroxidase antibodies

10. What would be your TSH target for this patient? Assume the reference range is 0.4–4.5 mU/L.
    a. <1 mU/L
    b. 1–2.49 mU/L
    c. 2.50–4.99 mU/L
    d. 5–8 mU/L
    e. 8–10 mU/L

11. After achieving stable target thyroid hormone levels, how often do you repeat laboratory testing?
    a. Monthly
    b. Every 2 months
    c. Every 3 months
    d. Every 6 months
    e. Every 12 months

12. How do you follow a patient who is at target and asymptomatic?
    a. Labs plus phone call
    b. Labs plus office visit
    c. Return to primary care physician

13. What would be your TSH target if the patient was age 25? Assume the reference range is 0.4–4.5 mU/L.
    a. <1 mU/L
    b. 1–2.49 mU/L
    c. 2.50–4.5 mU/L
14. What would be your TSH target if the patient’s age was 85?
   a. < 1 mU/L
   b. 1–2.49 mU/L
   c. 2.50–4.5 mU/L
   d. 4.5–8 mU/L
   e. 8–10 mU/L

15. Six months later, the patient states that she felt better initially after starting thyroid hormone therapy, but now her fatigue and poor concentration have returned. Her TSH is 0.5 mU/L and free T4 is 1.5 ng/dL (normal 0.8–1.8 ng/dL). What is your usual approach to this situation?
   a. Increase the thyroid hormone dose
   b. Change to combination therapy with levothyroxine and liothyronine
   c. Test for other sources of her symptoms
   d. Refer to behavioral health
   e. Refer to primary care

16. If you answered “Test for other sources of her symptoms” in the preceding question, which of the following tests would you perform in this patient? (Please check all that apply.)
   a. Complete blood count
   b. Complete metabolic panel
   c. T3 levels
   d. B12 levels
   e. AM cortisol

The following questions relate to the management of hypothyroidism in the soon to be pregnant or currently pregnant patient.

The patient is a 25-year-old woman with recently diagnosed primary hypothyroidism who wishes to become pregnant. History is significant for one prior spontaneous miscarriage. She has a small firm goiter, a pulse rate of 55 beats/min, and normal deep tendon reflexes. At diagnosis three months earlier, she was placed on levothyroxine, and currently the serum TSH is 3.5 mU/L (normal 0.4–4.5 mU/L). Thyroid peroxidase antibodies are strongly positive.

17. What is your target TSH value for this patient, who wishes to become pregnant?
   a. < 1 mU/L
   b. 1–2.49 mU/L
   c. 2.50–4.5 mU/L
   d. 4.5–8 mU/L
   e. 8–10 mU/L

18. The patient calls to inform you that she has a positive pregnancy test. Her serum TSH one week ago was 0.5 mU/L (normal 0.45–4.5 mU/L). Which of the following most closely approximates your dose adjustment in this situation?
   a. Reduce the dose by 50%
   b. Reduce the dose by 33%
   c. Continue the current dose
   d. Increase the dose by 33%
   e. Increase the dose by 50%

19. What is your target TSH in this pregnant patient?
   a. < 1 mU/L
   b. 1–2.49 mU/L
20. How often do you check thyroid labs in the pregnant patient?
   a. Every 2 weeks
   b. Every 4 weeks
   c. Every 8 weeks
   d. Every 12 weeks (3 months)

21. A 26-year-old female antenatal (7 weeks pregnant, first pregnancy) recently diagnosed hypothyroid, TSH: 78 mIU/ml, T4: 3.0 µg/dl, FT4: 0.6 (Normal 0.7–1.8 ng/dl). What would be the recommendation?
   a. Medical termination of pregnancy
   b. Start levothyroxine 1.8 µg/kg/day
   c. Start levothyroxine 3 µg/kg/day

22. A majority of women with hypothyroidism who are on levothyroxine therapy prior to pregnancy should……………………………during pregnancy.
   a. Decrease the dose of Levothyroxine
   b. Increase the dose of Levothyroxine
   c. Stop Levothyroxine therapy
   d. Switch to T3 therapy

23. Can patients with hypothyroidism on Levothyroxine breastfeed their newborns safely?
   a. Yes
   b. No
   c. I do not know

24. Euthyroid women positive for thyroid antibodies (thyroid peroxidase and/or thyroglobulin) have an increased risk of? (Please check all that apply.)
   a. Postpartum thyroiditis
   b. Preterm delivery
   c. Polyhydramnios
   d. Miscarriage
   e. Preeclampsia

The following questions relate to the management of subclinical hypothyroidism.

A 52-year-old woman with a family history of thyroid dysfunction is found to have a serum TSH of 7.8 mU/L. She is asymptomatic and otherwise healthy, takes no medications, and does not smoke cigarettes. She has a blood pressure of 125/80 mmHg, a pulse rate of 75 beats per min, and weighs 132 pounds (60 kg). She has a firm goiter, approximately twice normal size. Repeat serum TSH is 7.9 mU/L, and free T4 is in the midnormal range.

25. Which of the following tests do you obtain in the majority of patients such as this? (Please check all that apply.)
   a. Total T3
   b. Free T3
   c. Antithyroid peroxidase antibodies
   d. Antithyroglobulin antibodies
   e. Lipid panel
   f. Thyroid ultrasound

26. Which factors would lead you to recommend levothyroxine therapy for this patient? (Please check all that apply.)
   a. Would treat now without further justification
b. The presence of one or more hypothyroid symptoms
c. The presence of goiter
d. Positive thyroid peroxidase antibodies
e. Elevation in LDL cholesterol
f. Known atherosclerotic disease
g. Any traditional risk factor for coronary artery disease

27. How many newly diagnosed hypothyroid patients do you see every month?
   a. None
   b. <10
   c. 10–30
   d. 30–60
   e. >60

28. What is your specialty?
   a. General Medicine
   b. General Surgery
   c. Obstetrics and Gynecology
   d. Pediatrics
   e. Endocrinology
   f. Others (Kindly specify………………………………….)

29. What year did you graduate from medical school (MBBS)?…………………

30. What is your gender?
   a. Male
   b. Female
   c. Choose not to state