Evaluation of the Awareness and Knowledge in Dental Practitioners Regarding Bisphosphonate and Bisphosphonate-Related Osteonecrosis of the Jaw: A Cross-Sectional Online Survey from Pakistan

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Questionnaire: Knowledge of Bisphosphonates in Dental Practice

Section 1: Demographic Information

1. **Age:**

   _____years

2. **Gender:**

   ☐ Male ☐ Female

3. **Years of Experience in Dentistry:**

   _____years

4. **Specialization:**

   ☐ General Dentistry ☐ Periodontics ☐ Oral Surgery
   ☐ Endodontics ☐ Prosthodontics
   ☐ Other (please specify) _____

5. **Working sector:**

   ☐ Public sector ☐ Private sector ☐ Public & private both

6. **Type of organization (mark all that apply):**

   ☐ Teaching institute ☐ Non-teaching institute

Section 2: General Knowledge and awareness of bisphosphonate drugs

7. **Are you aware of bisphosphonates as a class of medication?**

   ☐ Yes ☐ No

   Note: If you are unaware of bisphosphonate then please stop this survey here

8. **If yes, from where did you learn about it?**

   ☐ Undergraduate education ☐ Attended workshop ☐ From colleagues
   ☐ Newspaper ☐ Scientific papers (journal articles)
   ☐ Conferences ☐ Any other (please specify):

9. **What are bisphosphonates primarily prescribed for? (indications)**

   ☐ Osteoporosis ☐ Cancer-related bone conditions
   ☐ Paget's disease ☐ Hypercalcemia
   ☐ Other (please specify) _____

10. **Do you know the mechanism of action of bisphosphonates?**

    ☐ They stimulate osteoblast activity and increase bone formation.
    ☐ They inhibit osteoclast-mediated bone resorption.
    ☐ They enhance the absorption of calcium in the intestines.

Section 3: Bisphosphonates: Administration, Duration, and Dosage

11. **What are the possible routes of administration for bisphosphonates? (Select all that apply)**

    ☐ Oral ☐ Intravenous (IV)
    ☐ Subcutaneous ☐ Other (please specify) _____

12. What is the typical duration of bisphosphonate therapy for patients?

☐ Short-term (less than 1 year) ☐ Medium-term (1–3 years)
☐ Long-term (more than 3 years) ☐ Depending on condition

13. Are you familiar with any potential dose-related risks associated with bisphosphonates?

☐ Yes ☐ No

Section 4: Bisphosphonates and Oral Health

14. Are you aware of any oral health implications related to bisphosphonates?

☐ Yes ☐ No

15. Have you ever heard of bisphosphonate-related osteonecrosis of the jaw (BRONJ)?

☐ Yes ☐ No

16. In your opinion, what are the most common symptoms of BRONJ? (Select all that apply)

☐ Pain ☐ Swelling ☐ Exposed necrotic bone
☐ Fistula formation ☐ Pus discharge ☐ Pathologic fractures
☐ Non-healing ulcers ☐ Other (please specify) _____

17. What do you think are the risk factors for BRONJ? (Select all that apply)

☐ Duration of bisphosphonate therapy ☐ Type of bisphosphonate (oral vs intravenous)
☐ History of dental extractions ☐ Poor oral hygiene
☐ Cancer therapy (chemotherapy, radiation) ☐ Dental implants
☐ Periodontal surgery ☐ Poor oral hygiene
☐ Smoking ☐ Other (please specify) _____

18. At what stage of bisphosphonate therapy do you think the risk of BRONJ is highest?

☐ Early stage (first few months) ☐ Long-term use (several years)
☐ After IV administration ☐ During cancer treatment
☐ Other (please specify) _____

Section 5: Management of Patients taking Bisphosphonate

19. Do you believe dental practitioners should play a role in the prevention of BRONJ?

☐ Yes ☐ No

20. Are you aware of any specific guidelines or protocols for managing patients on bisphosphonates?

☐ Yes ☐ No

21. Bisphosphonate use should be specifically enquired about during medical history taking due to its clinical implications

☐ True ☐ False

22. Patients receiving bisphosphonates require special considerations during dental extractions due to the risk of medication-related osteonecrosis of the jaw.Always

☐ True ☐ False

23. Which of the following are recommended considerations when performing dental surgery in patients receiving bisphosphonates?

☐ No modifications are needed
☐ Prescribing antibiotics and minimizing invasive surgical trauma
☐ Only increase local anesthesia
☐ Avoid any dental treatment completely