

Supplementary Material: Survey Questions and Answers								
Wave I Question	Highest ranked answer(s)	Percentage	Wave II Question	Answer	Percentage 2	Wave III Questions	Answer2	Percentage 3
Vitamin D deficiency is prevalent across all age groups and therapy areas.	Yes	100.0%						
Vitamin D deficiency is especially prevalent among females of childbearing age.	Yes	90.9%						
Vitamin D deficiency is a co-factor in the development of many skeletal and extra-skeletal diseases.	Yes	100.0%						
Lack of demonstrated cost-effectiveness is the main barrier against universal screening for vitamin D deficiency.	Yes	90.9%						
When choosing between empiric treatment and screening, which patients would you screen for vitamin D deficiency? (Select all that apply)	High-risk patients	90.9%						
	Chronic disease patients who did not achieve an adequate treatment response to their co-existing condition despite receiving the standard of care	100.0%						
What is your preferred alternative strategy to vitamin D screening?	Empiric vitamin D treatment	81.6%						
A unified and accurate serum 25(OH)D assay should be implemented across KSA to prevent the over- or under-estimation of vitamin D deficiency.	Yes	90.9%						
Can fortified foods be the only source of vitamin D for vitamin D-deficient patients?	No	100.0%						
Sun exposure should not be considered the main source of vitamin D due to the risks of skin cancer and ethnic/cultural differences.	Yes	90.9%						
What is the optimal vitamin D daily requirement for the general population?	600-800IU daily	36.4%	600-800IU daily is the optimal vitamin D daily requirement for the general population.	No	54.5%			
	1,000-2,000IU daily	54.5%	1,000-2,000IU daily is the optimal vitamin D daily requirement for the general population.	Yes	54.5%	1,000-2,000IU daily is the optimal vitamin D daily requirement for the general population.	Yes	90.9%
When choosing between empiric treatment and screening, which patients would you prescribe empiric vitamin D treatment? (Select all that apply)	Symptomatic patients	90.9%						
	High-risk patients	90.9%						
	Patients receiving certain medications	90.9%						
Empiric vitamin D supplementation for adults is prescribed at a dose of 50,000IU weekly.	Yes	81.6%						
For how long do you advise empiric supplementation of vitamin D for adults?	3 months	27.3%	Patients receiving empiric vitamin D supplementation should continue only for 3 months.	No	81.8%			
	Forever	36.4%	Patients receiving empiric vitamin D supplementation should continue to receive it forever.	Yes	72.7%	Patients receiving empiric vitamin D supplementation should continue to receive it forever.	Yes	100.0%
Screened patients with deficient serum 25(OH)D concentrations should be prescribed a loading vitamin D dose.	Yes	90.9%						
What is the optimal loading vitamin D dose for screened patients with deficient serum 25(OH)D concentrations (<30ng/mL)?	50,000IU weekly	90.9%						
Screened patients with sufficient serum 25(OH)D concentrations should be prescribed a maintenance vitamin D dose.	Yes	100.0%						
Screened general population with sufficient serum 25(OH)D concentrations should be:	Prescribed maintenance dose of vitamin D	100.0%						
What is the optimal maintenance vitamin D dose for screened patients with sufficient serum 25(OH)D concentrations (<30ng/mL)?	50,000IU weekly	27.3%	Screened patients with sufficient serum 25(OH)D concentrations (<30ng/mL) should be prescribed a maintenance dose of 50,000IU weekly.	No	63.6%			
	50,000IU monthly	36.4%	Screened patients with sufficient serum 25(OH)D concentrations (<30ng/mL) should be prescribed a maintenance dose of 50,000IU monthly.	Yes	63.6%	Screened patients with sufficient serum 25(OH)D concentrations (<30ng/mL) should be prescribed a maintenance dose of 50,000IU monthly.	Yes	100.0%
Tailoring vitamin D dose and frequency according to patients' preferences has a positive impact on adherence.	Yes	90.9%						
Weekly dosing rather than daily improves patient adherence.	Yes	100.0%						
Certain patient profiles are eligible for a loading dose >50,000IU/week, such as those with malabsorptive conditions.	Yes	100.0%						
Vitamin D is safe at high doses with only a very rare occurrence of toxicity.	Yes	100.0%						
What is the upper tolerable limit of daily vitamin D dose for adult patients?	10,000IU	50.0%	10,000IU is the maximum tolerable daily vitamin D dose for adult patients.	No	63.6%			
	5,000IU	20.0%	5,000IU is the maximum tolerable daily vitamin D dose for adult patients.	Yes	54.5%	5,000IU is the maximum tolerable daily vitamin D dose for adult patients.	Yes	100.0%
Vitamin D toxicity should not only be defined by high serum 25(OH)D concentrations, but also abnormal parathyroid hormone, calcium, and phosphate levels.	Yes	90.9%						
Have you observed improvement in patients' co-existing conditions once their serum 25(OH)D concentration is corrected?	Yes	100.0%						
Do you monitor vitamin D treatment using serum 25(OH)D concentrations?			Serum 25(OH)D should be monitored in: -patients with skeletal conditions (osteomalacia) -patients with malabsorptive conditions -patients with extra-skeletal conditions (renal and liver impairments) -patients receiving concomitant steroids -patients who did not improve on their prescribed vitamin D dose	Yes	100.0%			
	Yes	63.6%						
	No	36.4%						
If yes, how often do you monitor patients?	Every 3 months	37.5%	Patients eligible for monitoring should be tested every 3 to 6 months.	Yes	100.0%			
	Every 6 months	62.5%						
Patients already receiving vitamin D treatment, yet still symptomatic, should be tested for potential need for dose adjustment.	Yes	90.9%						
The goal serum 25(OH)D concentration should be tailored according to patients' age, gender, and co-existing conditions.	Yes	100.0%						
What is the ideal treatment goal for the general population?	Serum 25(OH)D concentrations >30ng/mL	36.4%	Serum 25(OH)D concentrations >30ng/mL is the ideal treatment goal for the general population.	Yes	54.5%	Serum 25(OH)D concentration >30ng/mL is the ideal treatment goal for the general population.	Yes	100.0%
	Serum 25(OH)D concentrations >50ng/mL	36.4%	Serum 25(OH)D concentrations >50ng/mL is the ideal treatment goal for the general population.	No	54.5%			
What is the ideal treatment goal for the elderly?	Serum 25(OH)D concentrations >30ng/mL	36.4%	Serum 25(OH)D concentrations >30ng/mL is the ideal treatment goal for the elderly.	No	72.7%			
	Serum 25(OH)D concentrations >50ng/mL	36.4%	Serum 25(OH)D concentrations >50ng/mL is the ideal treatment goal for the elderly.	Yes	72.7%	Serum 25(OH)D concentrations >50-<60 ng/mL is the ideal treatment goal for the elderly.	Yes	100.0%
What is the ideal treatment goal for adult patients with extra-skeletal conditions?	Serum 25(OH)D concentrations >50ng/mL	54.5%	Serum 25(OH)D concentrations >50ng/mL is the ideal treatment goal for patients with extra-skeletal conditions.	No	63.6%			
	Serum 25(OH)D concentrations >60ng/mL	27.3%	Serum 25(OH)D concentrations >60ng/mL is the ideal treatment goal for patients with extra-skeletal conditions.	No	54.5%	Serum 25(OH)D concentration >70ng/mL is the ideal treatment goal for patients with extra-skeletal conditions.	Yes	100.0%
At which dose is the empiric treatment maintained?	50,000IU weekly	54.5%	Empiric treatment should be maintained at 50,000IU weekly.	Yes	54.5%	Empiric treatment should be maintained at 50,000IU weekly.	Yes	100.0%
	50,000IU monthly	36.4%	Empiric treatment should be maintained at 50,000IU monthly.	No	54.5%			
What is the optimal maintenance dose for patients requiring a loading vitamin D dose >50,000IU/week? (maintenance dose, frequency, and duration)	50,000IU weekly	54.5%	Patients who were eligible for a loading dose of >50,000IU/week should be maintained at 50,000IU weekly.	No	54.5%	Patients who were eligible for a loading dose of >50,000IU/week should be maintained at 50,000IU weekly (or higher).	Yes	100.0%
	50,000IU twice monthly	27.3%	Patients who were eligible for a loading dose of >50,000IU/week should be maintained at 50,000IU/two weeks.	No	81.8%			
Which parameters would you use to monitor these patients and ensure their safety? How frequently would you test these parameters?	Serum 25(OH)D concentrations, bone profile, and renal function	70.0%	Patients who were eligible for a loading dose of >50,000IU/week should be monitored every 3-6 months for their serum 25(OH)D concentrations, bone profile, and renal function.	Yes	90.9%			
Vitamin D dose should be increased if the patient does not achieve the goal serum 25(OH)D concentration.	Yes	100.0%						
How should the vitamin D dose be increased?	Same loading dose on a more frequent schedule	54.5%	The loading dose is administered on a more frequent dosing schedule if dose escalation is required.	Yes	81.8%			
	Doubling the loading dose on the same schedule	18.2%	The loading dose is doubled on the same dosing frequency if dose escalation is required.	No	54.5%			
Vitamin D treatment is maintained rather than stopped once patients achieve sufficient serum 25(OH)D concentrations.	Yes	90.9%						