Claim	Annotation
X-linked hypophosphatemia (XLH) is a progressive, chronic, skeletal disorder	Martin 2012_p70/para4 Martin 2012_p71/para3/ln14-18 Carpenter 2011_p1382/col2/para2
XLH is characterized by renal phosphate wasting, which is caused by excess fibroblast growth factor 23 (FGF23)	Martin 2012_p70/para4 Martin 2012_p71/para3/ln14-18
production. In normal individuals, FGF23 helps maintain phosphate	Carpenter 2011_p1382/col2/para2 Penido 2012 p2041/col1/para1
homeostasis, which is critical to lifelong skeletal health	Penido 2012_p2041/co1/para1/ Penido 2012_p2040/co11/para1/ln2-6
In normal Individuals, FGF23 helps maintain phosphate homeostasis, which is critical to lifelong skeletal health ³ FG721s produced and secreted by homeostasis, principle onteropers, in respirate to elevated serum prosphate levels ³ Conditing FG723 signals renal production in Aut 19 Increased suppression of phosphate readerprinciples due to decreated prosphate excretion. In X11, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X14, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X14, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X14, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated prosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated phosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated phosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated phosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated phosphate excretion. In X16, suppression of phosphate readerprinciples due to decreated phosphate excretion.	
Chart callouts: FGF23 is produced and secreted by bone cells, primarily osteocytes, in response to elevated serum phosphate levels Increased suppression of 1,25-dihydroxyvitamin D production in XLH Decreased intestinal absorption of dietary phosphate in XLH XLH results in excess circulating FGF23 In XLH, suppression of phosphate reabsorption due to decreased production of sodium-phosphate cotransporters, results in increased phosphate excretion	 Riminucci 2003_p687/col2/para2/ln6-10 Riminucci 2003_p688/col1/para1/ln1-6 Ferrari 2005_p1522/col2/para2/ln4-5 Martin 2012_p78/para2/ln5-9 Martin 2012_p79/para1/ln1-4 Martin 2012_p78/para2/ln5-9 Martin 2012_p79/para1/ln1-4 Che Euro J Endocrin 2016_p1/col1/para1 Gattineni 2009_pF282/col1/para1/ln4-9
In patients with XLH, excess FGF23 leads to chronic hypophosphatemia caused by Renal phosphate wasting Decreased intestinal absorption of phosphate	Ruppe 2017_p2/para8 Carpenter 2011_p1382/col1/para3 Carpenter 2011_p1382/col2/para2 Penido 2012_p2041/col1/para1
This leads to the skeletal manifestations of XLH	Pettifor 2008_p494/col2/para4
The concessioned of VIII have a south to the second	Pettifor 2008_p495/col1/para1/ln1-7
The consequences of XLH have a sustained impact on skeletal health	Carpenter 2014_p13/para2 Carpenter 2014_p14/para2 Carpenter 2014_p14/para3/ln8-12 Carpenter 2014_p15/para1
ADULT	MSL Deck_p17
Delayed and Gayroportionate growth Carriopopostosis Tooth abscesses Tooth abscesses Tooth abscesses	Specifically for "disproportionate growth" Zivicnjak Ped Nephrol 2011/p228/col1/para1/ln3-7
Rickets Deleyed noture development and guit abnormalities Bone and joint gains joint sailfness (Spinal stenois) Joint stiffness (Spinal stenois)	Specifically for "delayed motor development" Che Euro J Endo 2016/p1/col2/para1/ln1-4
Moucle pain and weakness Chieri malformation Chieri malformation Dissibility that Impacts ability to work Dissibility of life including prophesocial impact	Specifically for "Excessive dental carries" CO-083266 OPTIUM Survey ADULT TABLES_01Mar2016/p5/Table4
	Specifically for Fractures (including insufficiency) Linglart Endo Connect 2014/p10/col1/para1/ln10-11
	Specifically for Fractures and Looser zones Pseudofractures and looser zones:

	https://radiopaedia.org/articles/looser-zones-1
	Specifically for Osteoarthritis Che Euro J Endocrin 2016/p326/col1/para2/ Linglart Endo Connect 2014/pg9/col2/para3
Clinical manifestations in adults with XLH arise as a result of unresolved complications of XLH during childhood and/or ongoing, active disease.	Linglart_Endocr Connect_2014_pg8/col2/para1/ln7-8 Skrinar_ENDO 2015_Poster SAT-244/Conclusion