VDI Lab Services
4685 Runway St. Ste K Simi Valley, CA 93063
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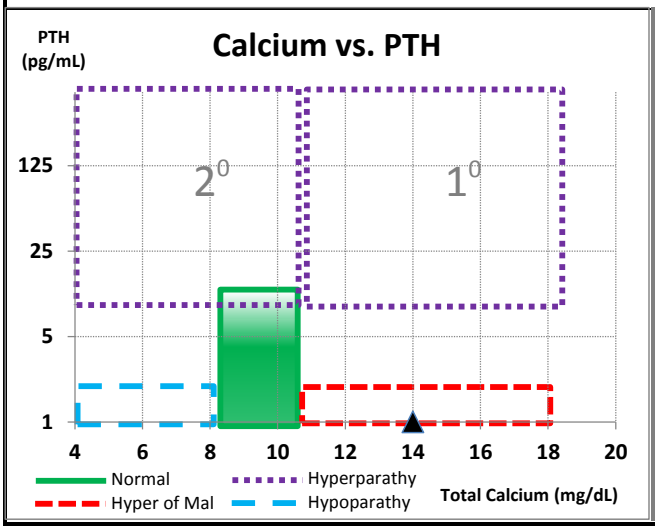
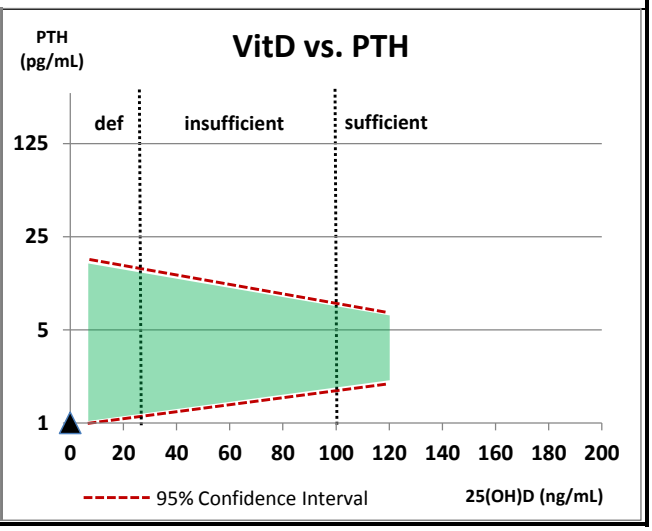
Lab Report For:

PATIENT NAME:	**MacKenzie Wilson**			**VETERINARIAN:**	**Dr. Whitney Engstrom**
SPECIMEN ID #:	**847778**	DRAW DATE:	1-Oct-14	FACILITY:	Any Name Clinic
SPECIES:	Feline	RECEIVED DATE:	2-Oct-14		123 Main Street
GENDER:	Female Spayed	SAMPLE TYPE:	Serum		Small Town, CA 55555
BREED:	DMH	COMMENTS:	none	PH:	805-555-5555
AGE:	3.5	PATIENT STAGE:	unknown	FAX:	805-555-5556
WEIGHT:	8.7 lb	TREATMENT:	Not Treated		

PTH 1-84 **FELINE CALCEMIA PANEL** **REPORT DATE:** **2-Oct-2014**

TEST NAME	RESULT	UNITS	FLAG	REFERENCE INTERVAL
PTH 1-84 1-84 parathyroid hormone	**Not Performed**	pg/mL		Normal: 1 - 14 Normal w/ Suff VitD: 2 - 8 High **(H)**: ≥ 14.1
VitD 25 hydroxy-vitamin D	**Not Performed**	ng/mL		Deficient **(Def)**: ≤ 24.9 Insufficient **(Insuff)**: 25.0 - 99.9 Sufficient: 100 - 120
Calcium total calcium	**14.0**	mg/dL	**H**	Low **(L)**: ≤ 8.1 Normal: 8.2 - 10.5 High **(H)**: ≥ 10.6





Interpretive Comment

PTH 1-84 FELINE CALCEMIA PANEL is a diagnostic tool to assist in the workup of hyper and hypo calcemia and includes PTH 1-84 which measures the complete PTH peptide sequence and is unaffected by PTH fragments; a particular problem in renal disease. To maintain calcium homeostasis, PTH and VitD work in concert to increase or decrease calcium absorption and/or resorption. PTH and VitD are inversely related; as VitD increases, PTH decreases.

Calcium vs. PTH

Normal: Population based reference interval. The darker shaded area represents where the majority of healthy cats should plot.
Hypercalcemia of Malignancy: This area reflects PTH-independent hypercalcemia for which malignant neoplasia is often suspect. Other conditions includes certain granulomatous diseases, hyperthyroidism, vitamin D intoxication and Addison's disease.
Primary (1) Hyperparathyroidism: This area reflects PTH-dependent hypercalcemia and due to an over-production of PTH - typically caused by a benign or malignant parathyroid tumor and in some instances 25(OH)D deficiency.
Secondary (2) Hyperparathyroidism: This area reflects PTH-independent normo/hypocalcemia. Conditions causing secondary hyperparathyroidism includes 25(OH)D deficiency and kidney disease.
Hypoparathyroidism: This area reflects PTH-dependent hypocalcemia and caused by insufficient amounts of PTH. Causes include damage to the parathyroid gland (trauma, chemo drugs, infection) and in certain autoimmune disorders.

VitD vs. PTH

There is a normal inverse relationship between 25(OH)D and PTH; the shaded area represents the 95% confidence interval. The normal range of PTH tightens as VitD sufficiency is attained. The two graphs are useful in diagnostic workup. **Call VDI for consultation**.

Interpretive comments are general in nature and in absence of detailed knowledge of patient status or treatment. For more information on specific cases, please contact VDI.

Tech: RR