DEXA

██

DXA Bone Densitometry Report: 20 November 2019

Dear ████████

Your patient Geraldine Hayes completed a BMD DEXA test on 20/11/2019 . The following summarizes the results of our evaluation.

🞂 PATIENT DETAILS:

Name:	Hayes, Geraldine				
Patient ID:	████████	**Birth Date:**	████████	**Height:**	████████
Gender:		**Exam Date:**	20/11/2019	**Weight:**	
Indications:	Family Hist. (Parent hip fracture), Family hx of Osteoporosis, History of Fracture (Adult), Osteoporosis	**Fractures:**		**Treatments:**	Algaecal

📙 ASSESSMENT:

The BMD measured at AP Spine L2-L4 (L3) is 0.680 g/cm² with a T-score of -4.3. This patient is considered osteoporotic according to World Health Organization (WHO) criteria. Fracture risk is high. Pharmacological treatment, if not already prescribed, should be started. A follow up bone density test is recommended in one year to monitor response to therapy.

With a Z-Score of -3.0, this patient has very low BMD for their age and sex. Causes of secondary bone loss should be investigated.

AP Spine: L2-L4 (L3) (BMD)
BMD (g/cm²)   YA T-score

1.32	Normal	-1
1.08	Low Bone Mass	-1
0.84		-3
0.60	Osteoporosis	-5
	20 40 60 80 100	

Age (years)
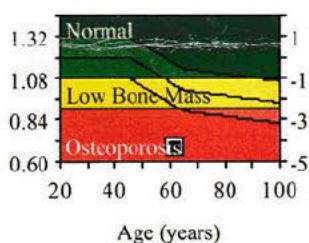
T-score: USA (Combined NHANES/Lunar)
Z-score: UK

Site	Region	Measured Date	Measured Age	WHO Classification	Young Adult T-score	BMD
AP Spine	L2-L4 (L3)	20/11/2019	61.6	Osteoporosis	-4.3	0.680 g/cm²

World Health Organization (WHO) criteria for post-menopausal, Caucasian Women:
Normal: T-score at or above -1 SD
Osteopenia: T-score between -1 and -2.5 SD
Osteoporosis: T-score at or below -2.5 SD

✚ RECOMMENDATIONS:

Treatment options should be discussed with patients diagnosed with osteoporosis. All patients should ensure an adequate intake of dietary calcium and vitamin D.

🕐 FOLLOW-UP:

People with diagnosed cases of osteoporosis or at high risk for fracture should have regular bone mineral density tests.

Follow up DEXA is recommended in 1 year.

DEXA

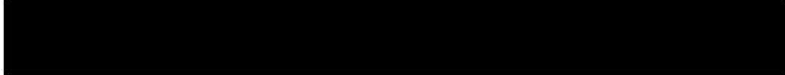| Patient:	Hayes, Geraldine				
Birth Date:		Age:		Patient ID:	
Height:		Weight:		Measured:	20/11/2019 11:09:02 (16 [SP 1])
Sex:	Female	Ethnicity:	White	Analyzed:	20/11/2019 11:15:42 (16 [SP 1])

ANCILLARY RESULTS: DualFemur

Region	BMD (g/cm^2)	YA (%)	YA T-score	AM (%)	AM Z-score	BMC (g)	Area (cm^2)
Neck Left	0.647	62	-2.8	76	-1.5	3.27	5.05
Neck Right	0.733	71	-2.2	86	-0.9	3.73	5.09
Neck Mean	0.690	66	-2.5	81	-1.2	3.50	5.07
Neck Diff.	0.085	8	0.6	10	0.6	0.46	0.04
Upper Neck Left	0.558	68	-2.2	83	-1.0	1.39	2.50
Upper Neck Right	0.648	79	-1.4	96	-0.2	1.63	2.51
Upper Neck Mean	0.603	73	-1.8	89	-0.6	1.51	2.51
Upper Neck Diff.	0.091	11	0.8	13	0.8	0.24	0.02
Lower Neck Left	0.735	-	-	-	-	1.88	2.55
Lower Neck Right	0.815	-	-	-	-	2.10	2.58
Lower Neck Mean	0.775	-	-	-	-	1.99	2.56
Lower Neck Diff.	0.080	-	-	-	-	0.23	0.03
Wards Left	0.597	66	-2.4	87	-0.7	1.69	2.84
Wards Right	0.574	63	-2.6	84	-0.8	1.65	2.88
Wards Mean	0.586	64	-2.5	86	-0.8	1.67	2.86
Wards Diff.	0.022	2	0.2	3	0.2	0.04	0.04
Troch Left	0.564	66	-2.5	77	-1.5	8.47	15.03
Troch Right	0.571	67	-2.4	78	-1.4	8.91	15.59
Troch Mean	0.567	67	-2.5	77	-1.5	8.69	15.31
Troch Diff.	0.008	1	0.1	1	0.1	0.44	0.56
Shaft Left	0.725	-	-	-	-	11.05	15.24
Shaft Right	0.803	-	-	-	-	11.52	14.35
Shaft Mean	0.764	-	-	-	-	11.29	14.79
Shaft Diff.	0.077	-	-	-	-	0.46	0.89
Total Left	0.645	64	-2.9	73	-1.9	22.79	35.32
Total Right	0.690	68	-2.5	78	-1.5	24.15	35.03
Total Mean	0.668	66	-2.7	76	-1.7	23.47	35.17
Total Diff.	0.044	4	0.4	5	0.4	1.36	0.29

Statistically 68% of repeat scans fall within 1SD (± 0.012 g/cm^2 for DualFemur Neck Left); T-score: DEXA: USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) Femur, Female, White Reference Population (v113); Z-score: Matched for Age, Sex, Ethnic; DualFemur Total T-score difference is 0.4. Asymmetry is None.; World Health Organization - Definition of Osteoporosis and Low Bone Mass for Caucasian Women: Normal = T-score at or above -1.0 SD; Low Bone Mass = T-score between -1.0 and -2.5 SD; Osteoporosis = T-score at or below -2.5 SD; (WHO definitions only apply when a young healthy Caucasian Women reference database is used to determine T-scores.)

Date created: 20/11/2019 11:16:47 16 [SP 1]; Filename: hhl91q6h16.dfx; Left Femur, 76:3.00:50.03:12.0 0.00:10.26 0.60x1.05 16.3:%Fat=39.8%; 0.00:0.00 0.00:0.00; Neck Angle (deg)= 49; Scan Mode: Standard; 37.0 µGy; Right Femur, 76:3.00:50.03:12.0 0.00:10.74 0.60x1.05 16.5:%Fat=38.5%; 0.00:0.00 0.00:0.00; Neck Angle (deg)= 56; Scan Mode: Standard; 37.0 µGy
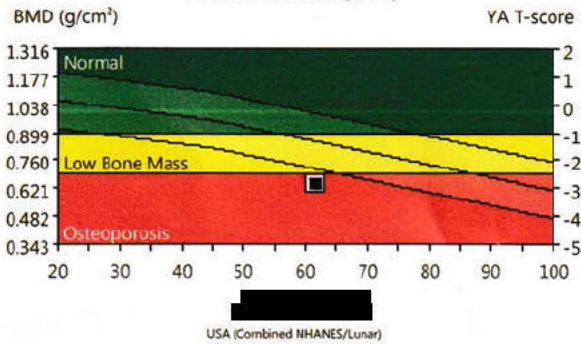
GE Healthcare   Page: 1 of 1   Lunar Prodigy Advance
                                                                            PA+302010

DEXA

Patient:	Hayes, Geraldine			Referring Physician:	███████
Birth Date:	███████	Age:	███████	Patient ID:	███████
Height:	███████	Weight:	███████	Measured:	20/11/2019 11:09:02 (16 [SP 1])
Sex:	Female	Ethnicity:	White	Analyzed:	20/11/2019 11:15:42 (16 [SP 1])

DualFemur Bone Density

Image not for diagnosis   Image not for diagnosis
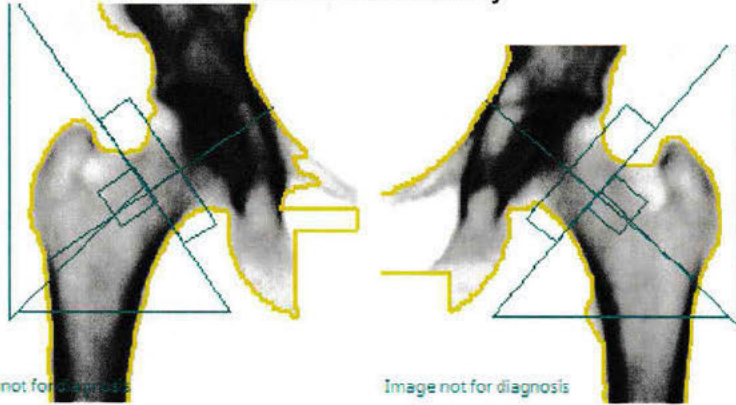
Left Femur: Neck (BMD)

USA (Combined NHANES/Lunar)

Densitometry: USA (Combined NHANES/Lunar)			
Region	BMD (g/cm²)	YA T-score	AM Z-score
Neck Left	0.647	-2.8	-1.5
Neck Right	0.733	-2.2	-0.9
Neck Mean	0.690	-2.5	-1.2
Neck Diff.	0.085	0.6	0.6
Total Left	0.645	-2.9	-1.9
Total Right	0.690	-2.5	-1.5
Total Mean	0.668	-2.7	-1.7
Total Diff.	0.044	0.4	0.4

Hip Axis Length Comparison (mm)
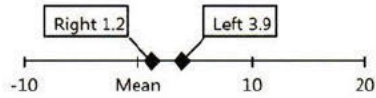
Right=108.3 mm   Mean=107.1 mm   Left=111.0 mm

COMMENTS:

Statistically 68% of repeat scans fall within 1SD (± 0.012 g/cm² for DualFemur Neck Left); T-score: USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) Femur, Female, White Reference Population (v113); Z-score: Matched for Age, Sex, Ethnic; DualFemur Total T-score difference is 0.4. Asymmetry is None.; World Health Organization - Definition of Osteoporosis and Low Bone Mass for Caucasian Women: Normal = T-score at or above -1.0 SD; Low Bone Mass = T-score between -1.0 and -2.5 SD; Osteoporosis = T-score at or below -2.5 SD; (WHO definitions only apply when a young healthy Caucasian Women reference database is used to determine T-scores.)

Date created: 20/11/2019 11:16:42 16 [SP 1]; Filename: hhl91q6h16.dfx; ; Left Femur; 76:3.00:50.03:12.0 0.00:10.26 0.60x1.05 16.3:%Fat=39.8%; 0.00:0.00 0.00:0.00; Neck Angle (deg)= 49; Scan Mode: Standard; 37.0 µGy; Right Femur; 76:3.00:50.03:12.0 0.00:10.74 0.60x1.05 16.5:%Fat=38.5%; 0.00:0.00 0.00:0.00; Neck Angle (deg)= 56; Scan Mode: Standard; 37.0 µGy

DEXA

Patient:	Hayes, Geraldine			Patient ID:	
Birth Date:		Age:			
Height:		Weight:		Measured:	20/11/2019 11:09:02 (16 [SP 1])
Sex:	Female	Ethnicity:	White	Analyzed:	20/11/2019 11:15:42 (16 [SP 1])

ANCILLARY RESULTS: AP Spine

Region	BMD (g/cm²)	YA (%)	YA T-score	AM (%)	AM Z-score	BMC (g)	Area (cm²)	Width (cm)	Height (cm)
L1	0.823	73	-2.6	85	-1.2	8.82	10.72	3.5	3.02
L2	0.758	63	-3.7	73	-2.4	8.44	11.13	3.7	3.04
L3	0.800	67	-3.3	77	-2.0	11.18	13.99	4.1	3.44
L4	0.622	52	-4.8	60	-3.5	9.48	15.24	4.5	3.35
L2-L4 (L3)	0.680	57	-4.3	65	-3.0	17.92	26.37	4.1	6.39

Statistically 68% of repeat scans fall within 1SD (± 0.020 g/cm² for AP Spine L2-L4 (L3)); T-score: USA (Combined NHANES (ages 20-30) / Lunar (ages 20-40)) AP Spine, Female, White Reference Population (v113); Z-score: UK AP Spine Reference Population (v113) Matched for Age, Sex, Ethnic; World Health Organization - Definition of Osteoporosis and Low Bone Mass for Caucasian Women: Normal = T-score at or above -1.0 SD; Low Bone Mass = T-score between -1.0 and -2.5 SD; Osteoporosis = T-score at or below -2.5 SD; (WHO definitions only apply when a young healthy Caucasian Women reference database is used to determine T-scores.)
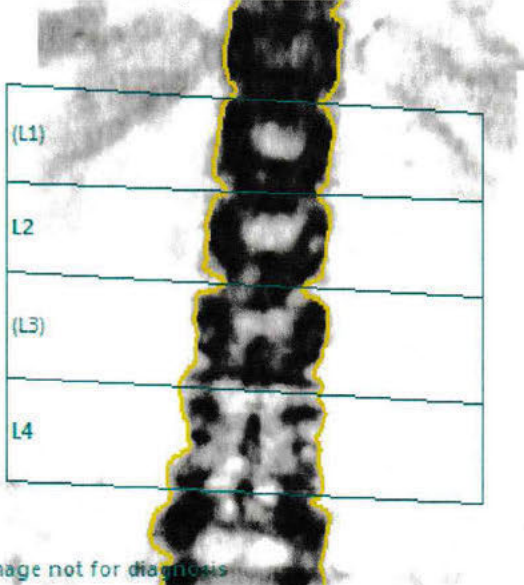
Date created: 20/11/2019 11:16:41 16 [SP 1]; Filename: hhl91q6h16.dfx; AP Spine; 76:3.00:50.03:12.0 0.00:9.78 0.60x1.05 21.5:%Fat=33.9%; 0.00:0.00 0.00:0.00; Scan Mode: Standard; 37.0 µGy
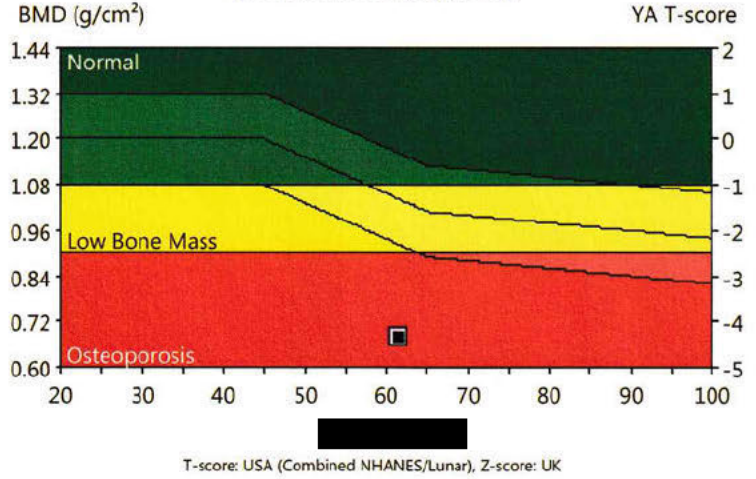
DEXA

███████████████████████████████████████

Patient:	Hayes, Geraldine			Patient ID:	███████████	
Birth Date:	███████	Age:	████████	Measured:	20/11/2019 11:09:02 (16 [SP 1])	
Height:	██████	Weight:	████████	████		
Sex:	Female	Ethnicity:	White	Analyzed:	20/11/2019 11:15:42 (16 [SP 1])	

AP Spine Bone Density

Image not for diagnosis

COMMENTS:

AP Spine: L2-L4 (L3) (BMD)

T-score: USA (Combined NHANES/Lunar), Z-score: UK

	Densitometry: T-score: USA (Combined NHANES/Lunar), Z-score: UK		
Region	**BMD (g/cm²)**	**YA T-score**	**AM Z-score**
L1	0.823	-2.6	-1.2
L2	0.758	-3.7	-2.4
L3	0.800	-3.3	-2.0
L4	0.622	-4.8	-3.5
L2-L4 (L3)	0.680	-4.3	-3.0