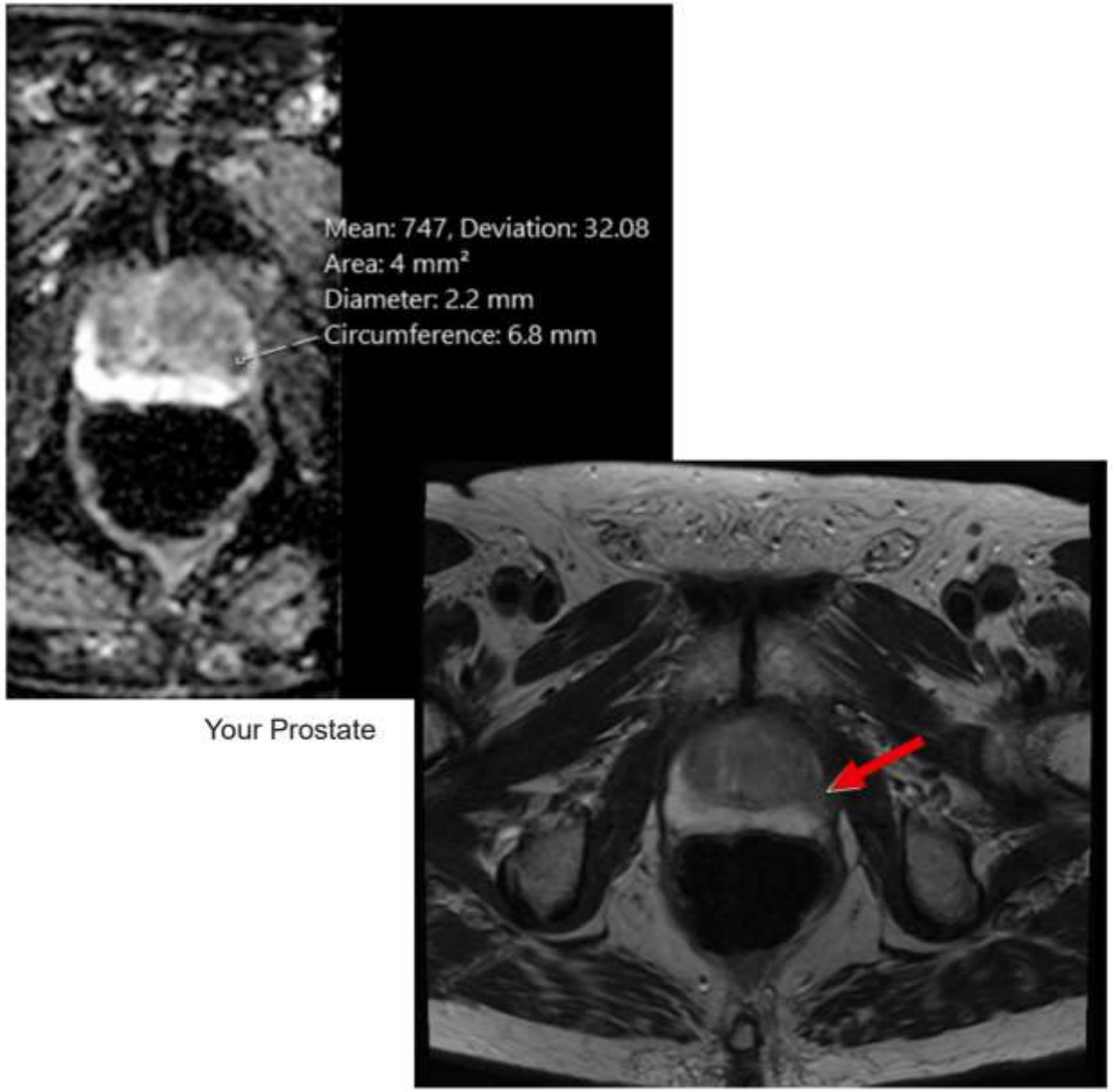
“Larry Smarr’s Prostate Cancer Early Detection and Focal Therapy- Focus on Post-Therapy Time Series”

UCLA Health
IDx Abdominal Research Interest Group Meeting
January 16, 2024

Dr. Larry Smarr
Founding Director Emeritus, California Institute for Telecommunications and Information Technology;
Distinguished Professor Emeritus, Dept. of Computer Science and Engineering
Jacobs School of Engineering, UCSD
http://lsmarr.calit2.net

LARRY SMARR

Prostate Cancer Was Detected by Advanced MRI Full Body Scan at Human Longevity, Inc. on January 19, 2023



Estimate is:

- **Very Early Stage**
- **High Grade Cancer**
- **Small Cancer Contained Within Prostate Capsule**
- **No Cancer in Lymph Nodes**
- **Gleason Score Likely 3+4**

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MRI/Ultrasound-Guided UCSD Prostate Biopsy (March 27, 2023) Confirmed a Localized, Intermediate Grade, But High Risk Cancer

PHILIPS UroNav

MR/Ultrasound guided fusion biopsy system



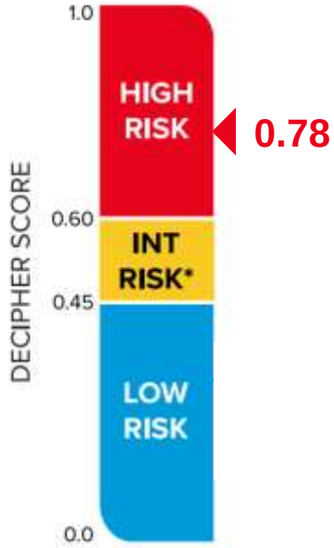


Amirali Salmasi, MD
Performed UCSD Prostate Biopsy
March 27, 2023

16 Needle Biopsy Samples
4 on MRI Targeted Tumor
12 Across Prostate

UCSD &
Johns Hopkins Pathology Labs
Microscopically Analyzed
My Prostate Biopsy Samples:
Gleason 4+3,
An Intermediate Grade Cancer

Decipher Prostate Biopsy Sample Genomic Risk Score:



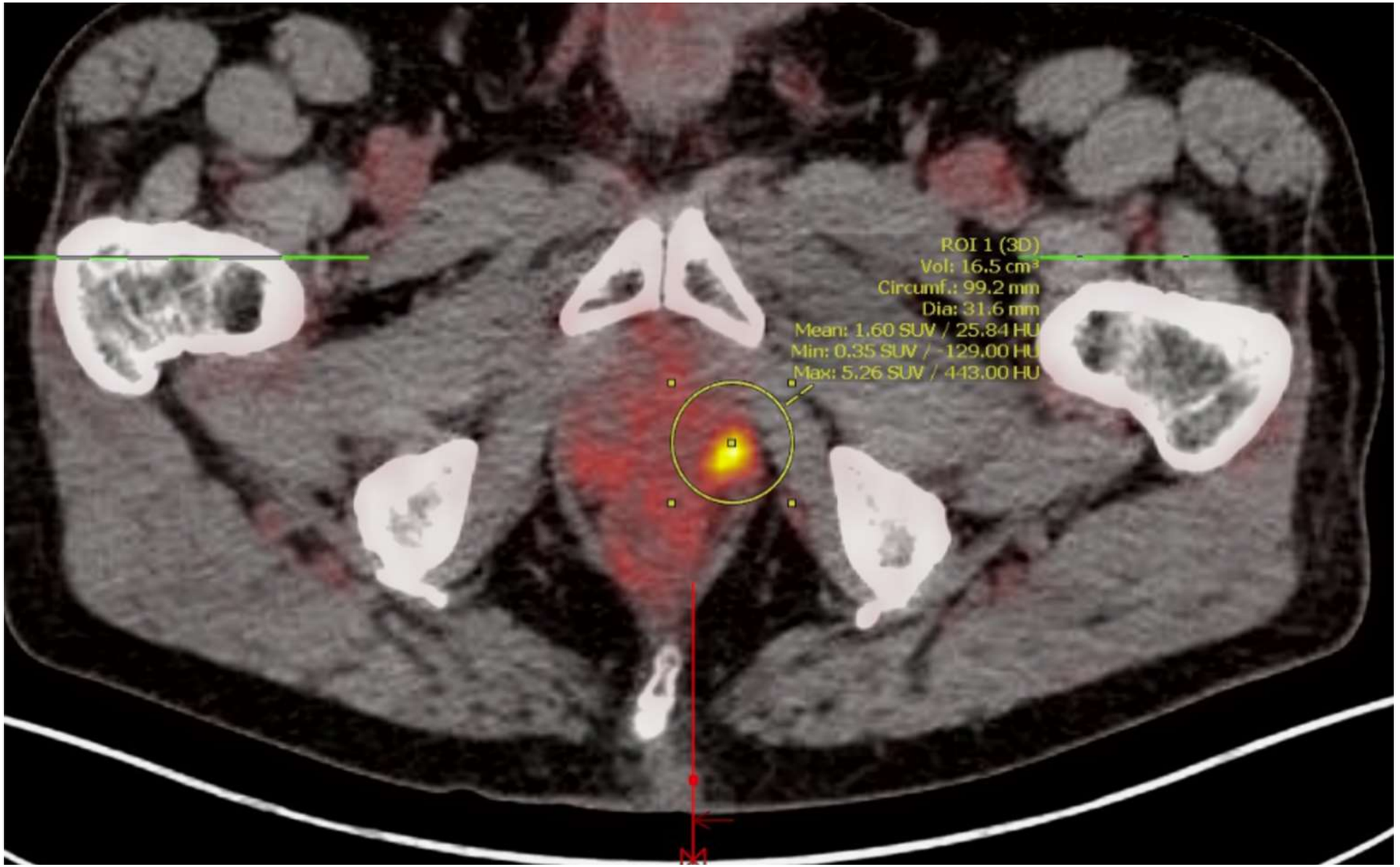
https://decipherbio.com/

25.9%

15-year
Risk of Prostate Cancer Mortality with RT or RP

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UC San Diego PET/CT May 3, 2023
Confirms Location of Prostate Cancer Tumor



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Prostate Cancer
Therapy Alternatives

- **Active Surveillance and Watchful Waiting**
- **Surgical Removal of Prostate and Lymph Nodes**
- **Androgen-Deprivation Plus Radiation Therapy**
- **Focal Therapy (Ultrasound, Cryogenic, Laser)**

UCSD's Amirali Salmasi, MD
Reviewed My Prostate Biopsy Results

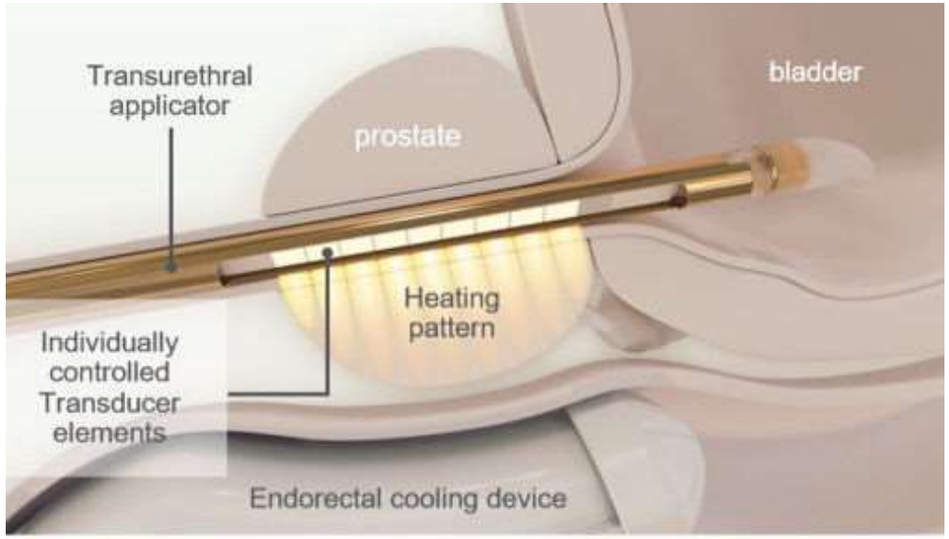
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HLI's CEO David Karow, MD/PhD Introduced Me to the UCLA Team Who Performed a TULSA Cyberphysical Procedure With Realtime MRI Imaging



Steven Raman, MD
UCLA Director of Prostate MR Imaging and Interventions



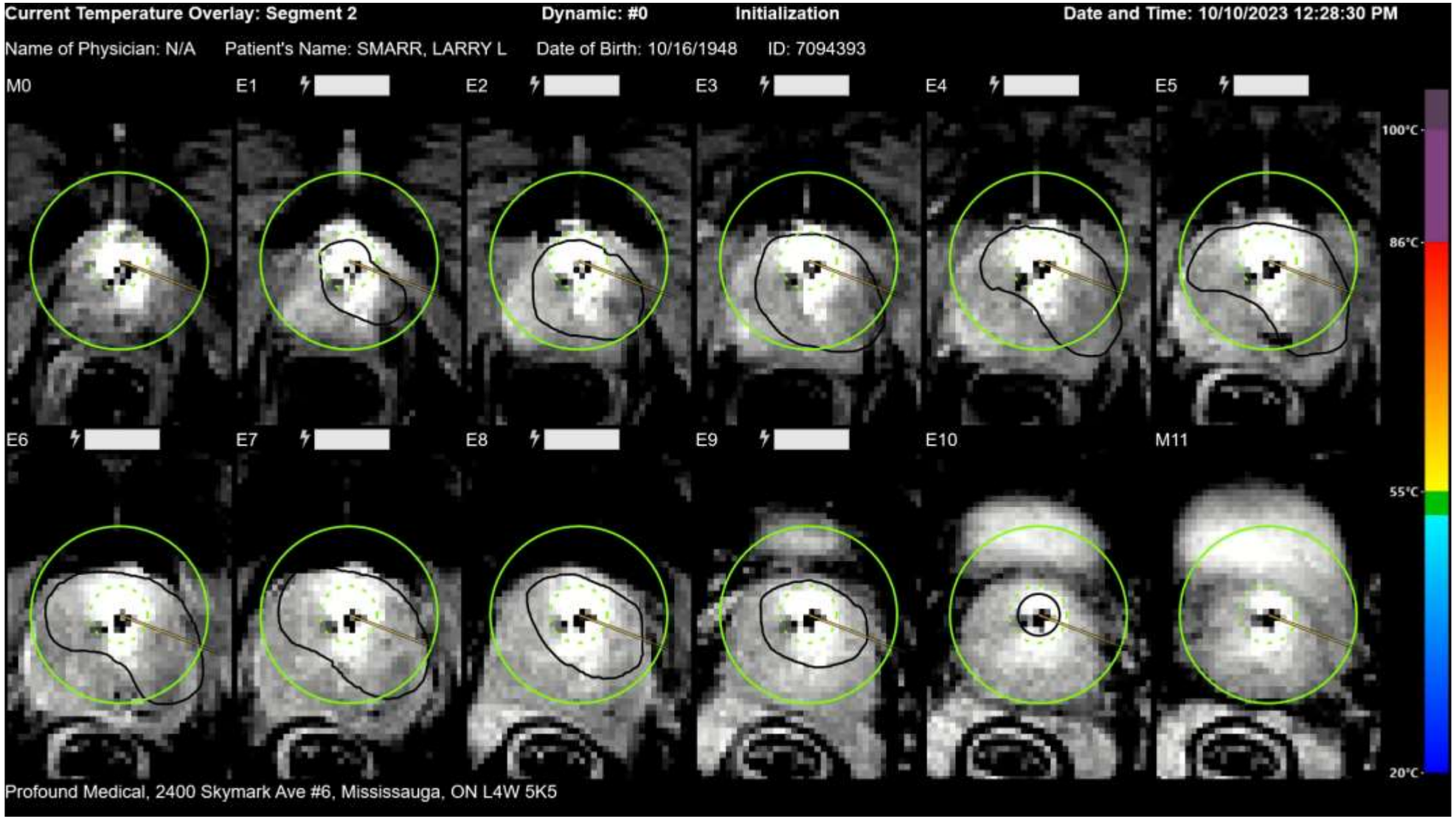




Wayne Brisbane, MD
UCLA Urology
Urologic Oncology

LARRY SMARR

MRI Slices Top to Bottom of Prostate During UCLA TULSA Over 48 Minutes: Current Temperature From Ultrasound Heating Every 5 Seconds

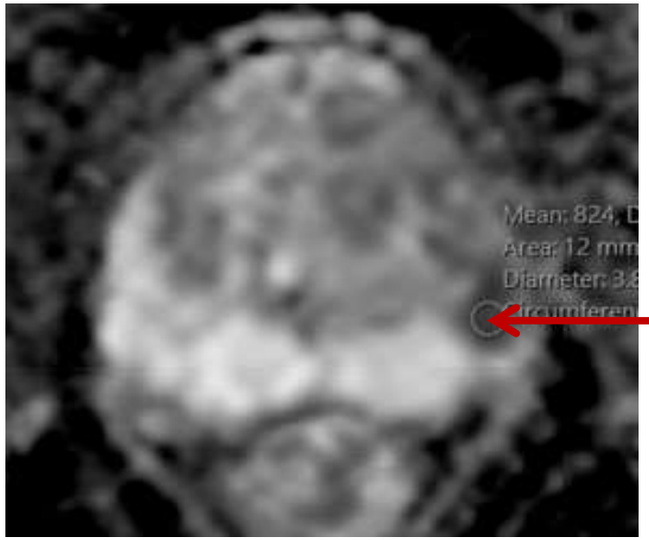


Max Temp 190° F

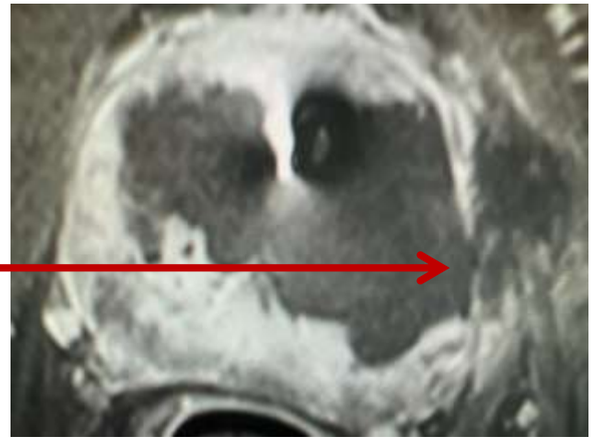
Source: Dr. Steve Raman, Interventional Radiology UCLA

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HLI Prostate MRI
Before and After TULSA



Tumor Location



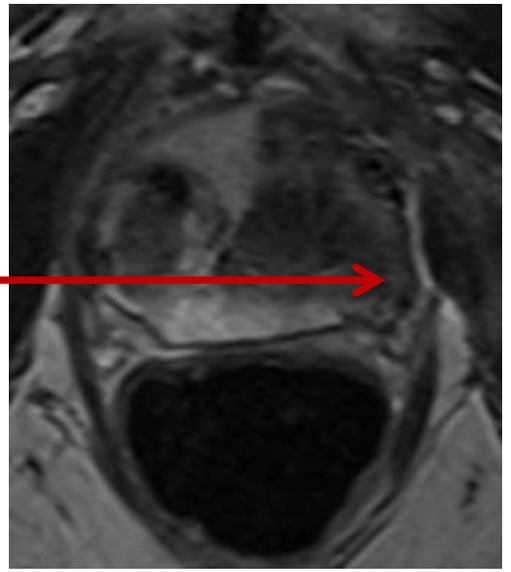
Pre-Treatment

Post-Treatment

Ablation Destroyed Cancer Tumor and 2/3 of Prostate Volume



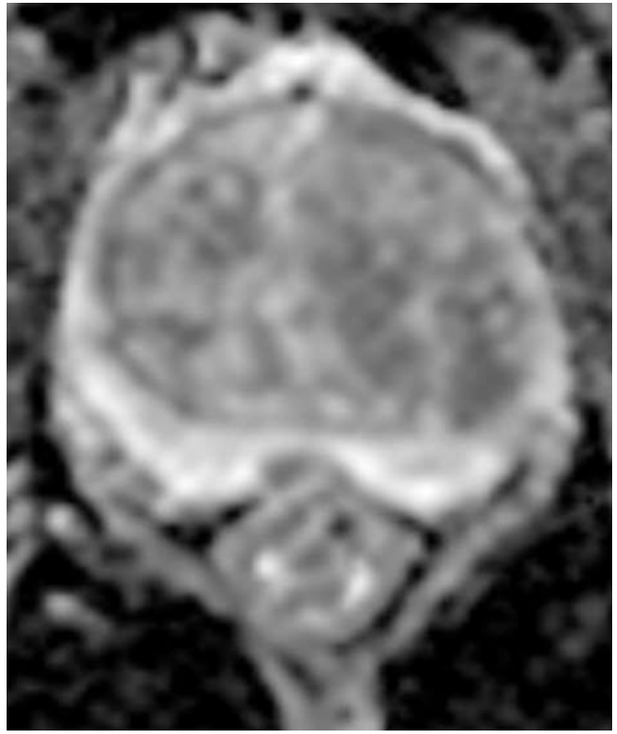
Tumor Location



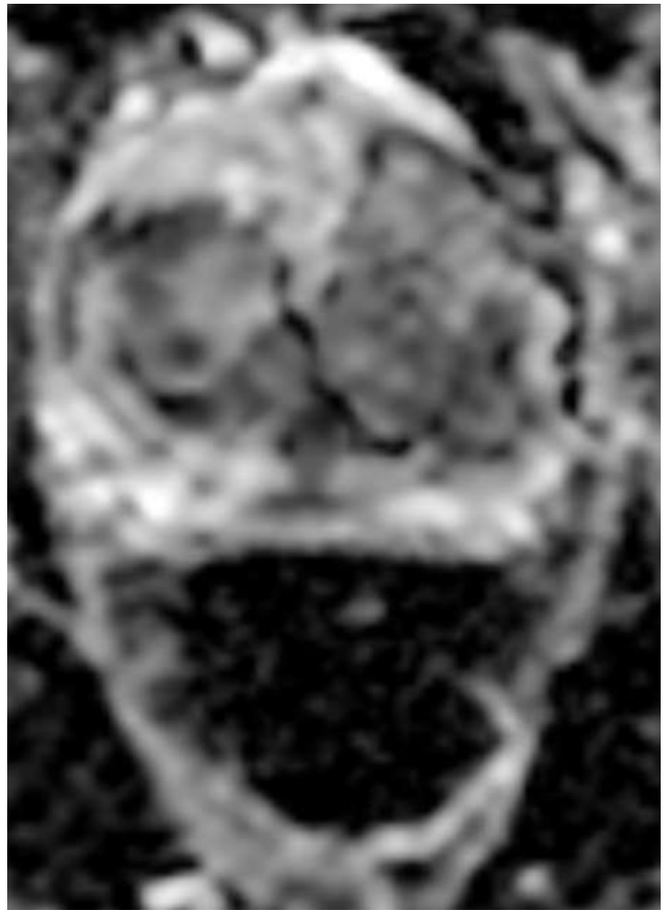
Followup Plan is: Active Surveillance with PSA and MRI every 3-6 months

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Prostate MRI Time Series









9/27/23
-2 Weeks

10/10/23
TULSA

10/31/23
+3 Weeks

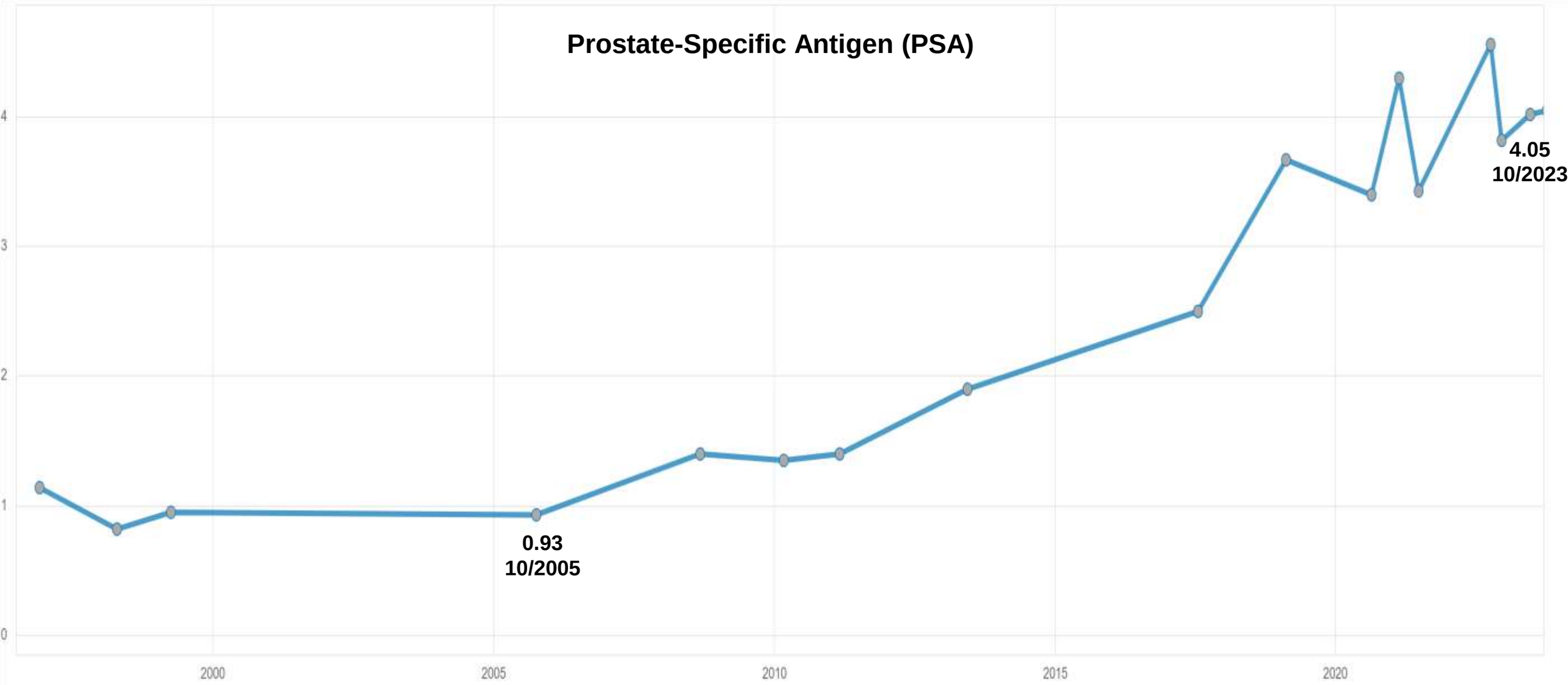
1/12/24
+3 Months

No Detectable Tumor-David Karow, MD, CEO HLI

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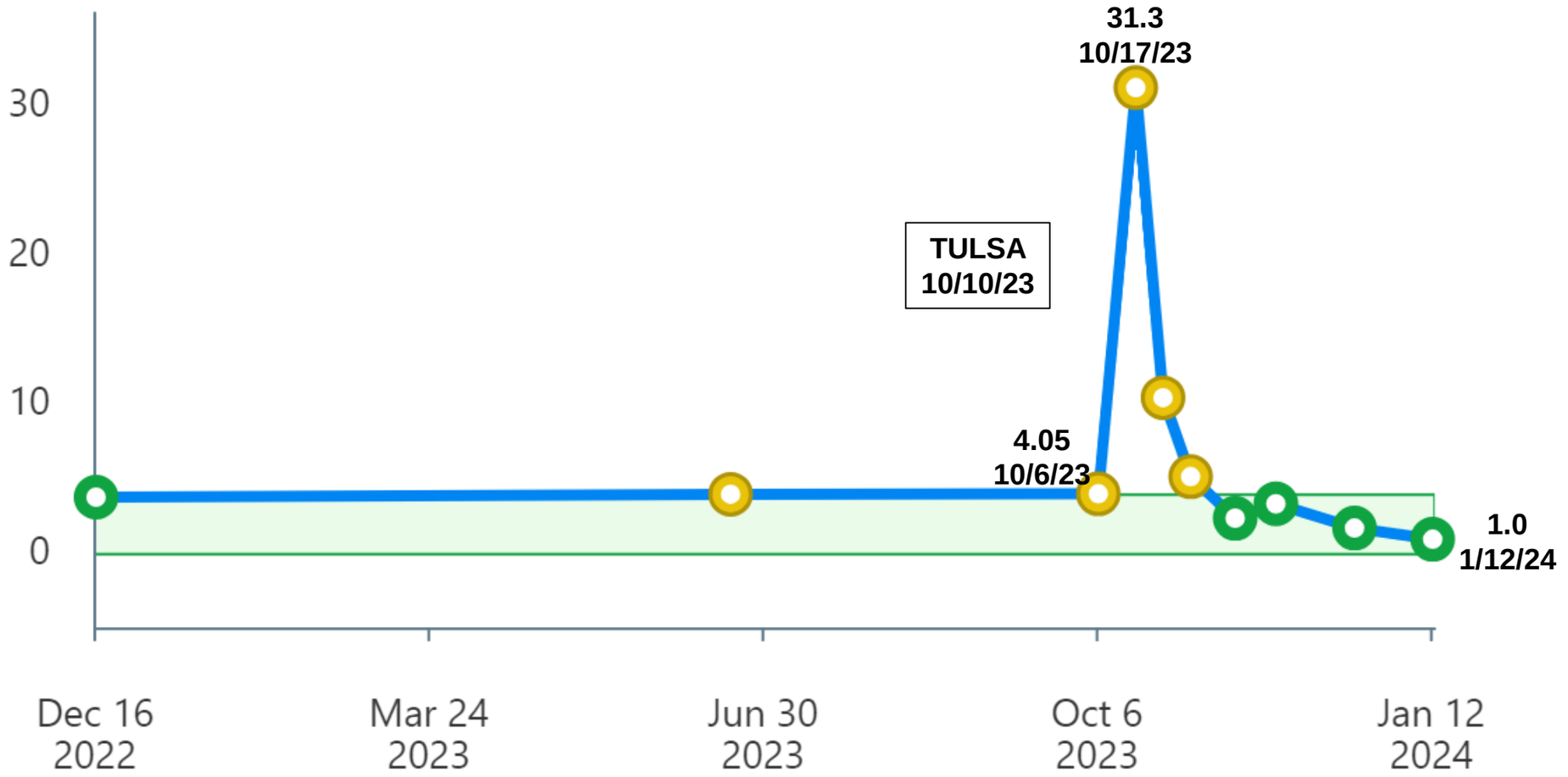
Human Longevity, Inc. MRI Ambra Health Viewer Slice 15

My PSA Has Been Rising Since 2006



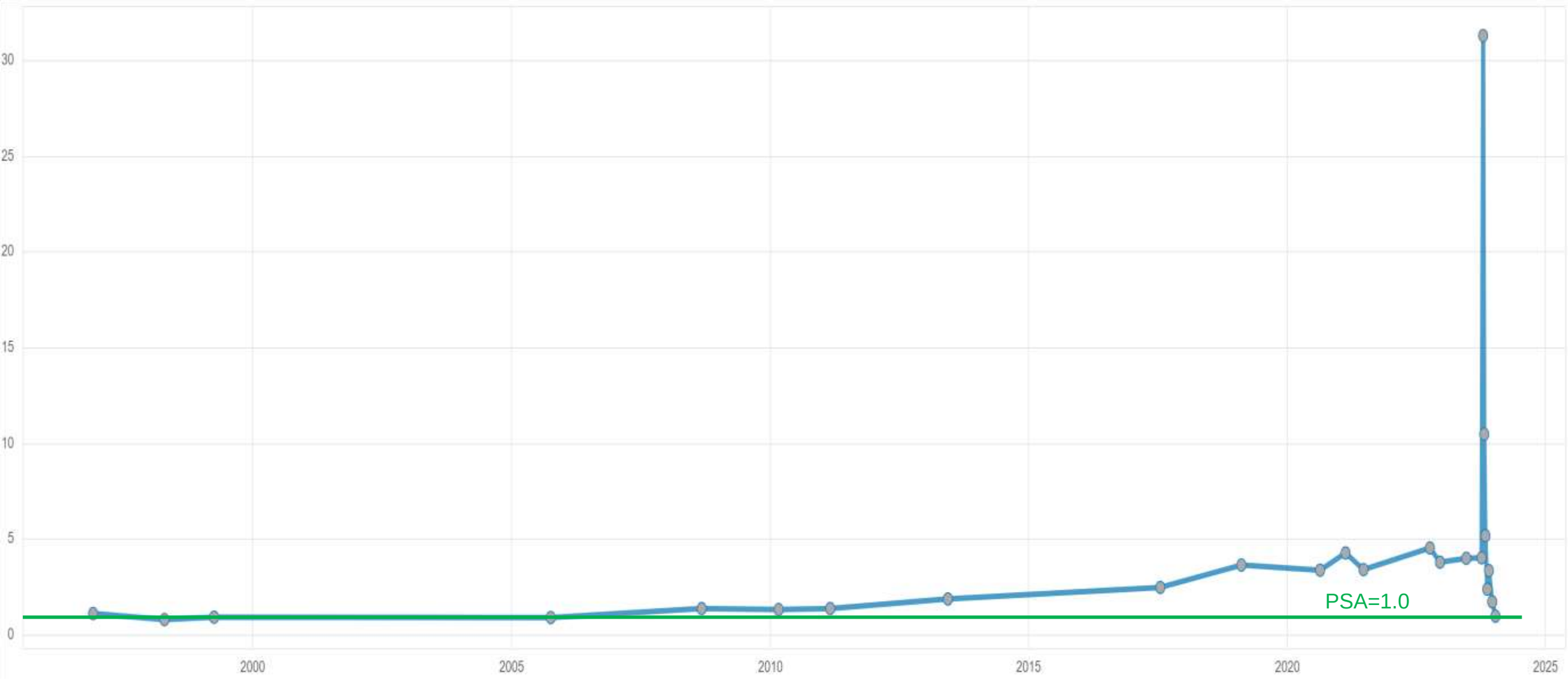
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LS PSA Over Last 12 Months



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My PSA is Back to 1.0
After 15 Years



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What Are Measurable Post-TULSA Patient Impacts?

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My Personal Wearable Study on Post-TULSA SpO2 Decrease

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I Wear a Wellue O2Ring Continuous Pulse Oximeter on My Thumb Every Night From Going to Bed Until Waking Up



https://getwellue.com/pages/o2ring-oxygen-monitor



Screen Capture From My Android ViHealth App for October 9-10, 2023

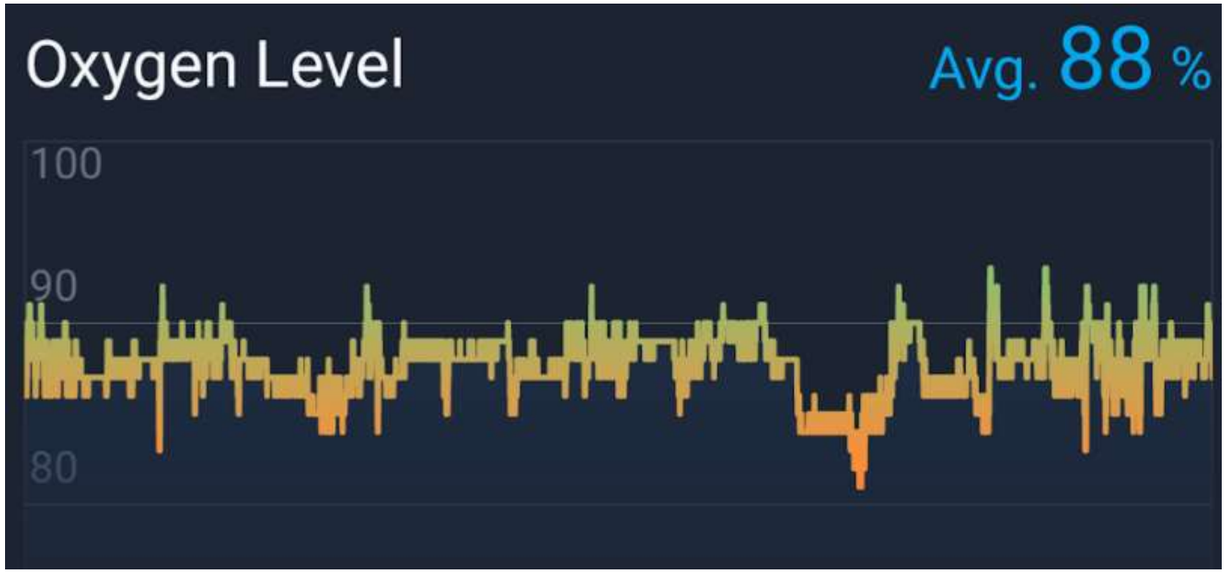
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My SpO2 Was Much Lower All Night For Two Weeks After TULSA

SpO2 Reading Taken Multiple Times Per Minute All Night



October 9-10, 2023
9pm-5am
Night Before TULSA

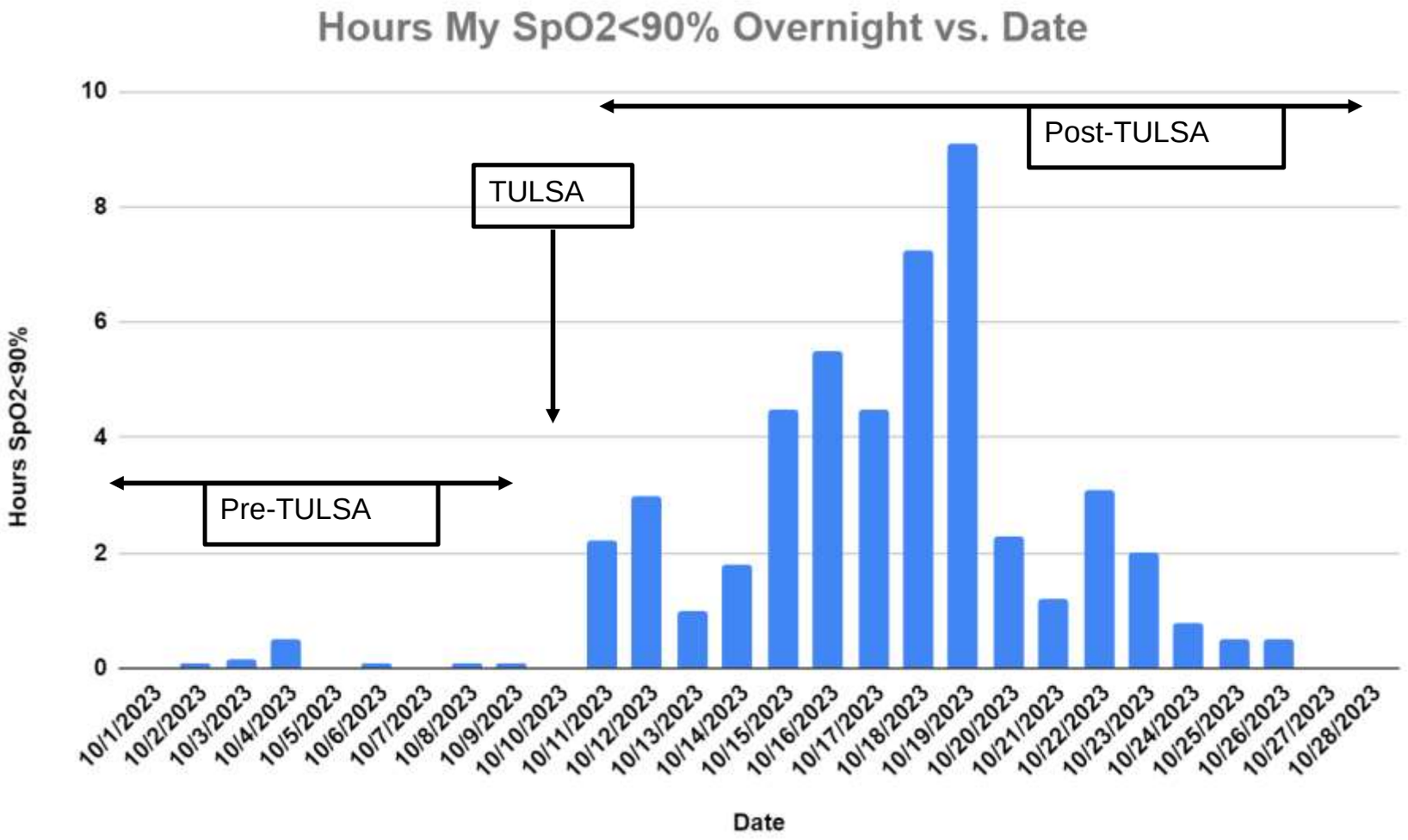


October 19-20, 2023
9:15pm-7:15am
9 Nights After TULSA

I Was Using a CPAP All Night During This Time

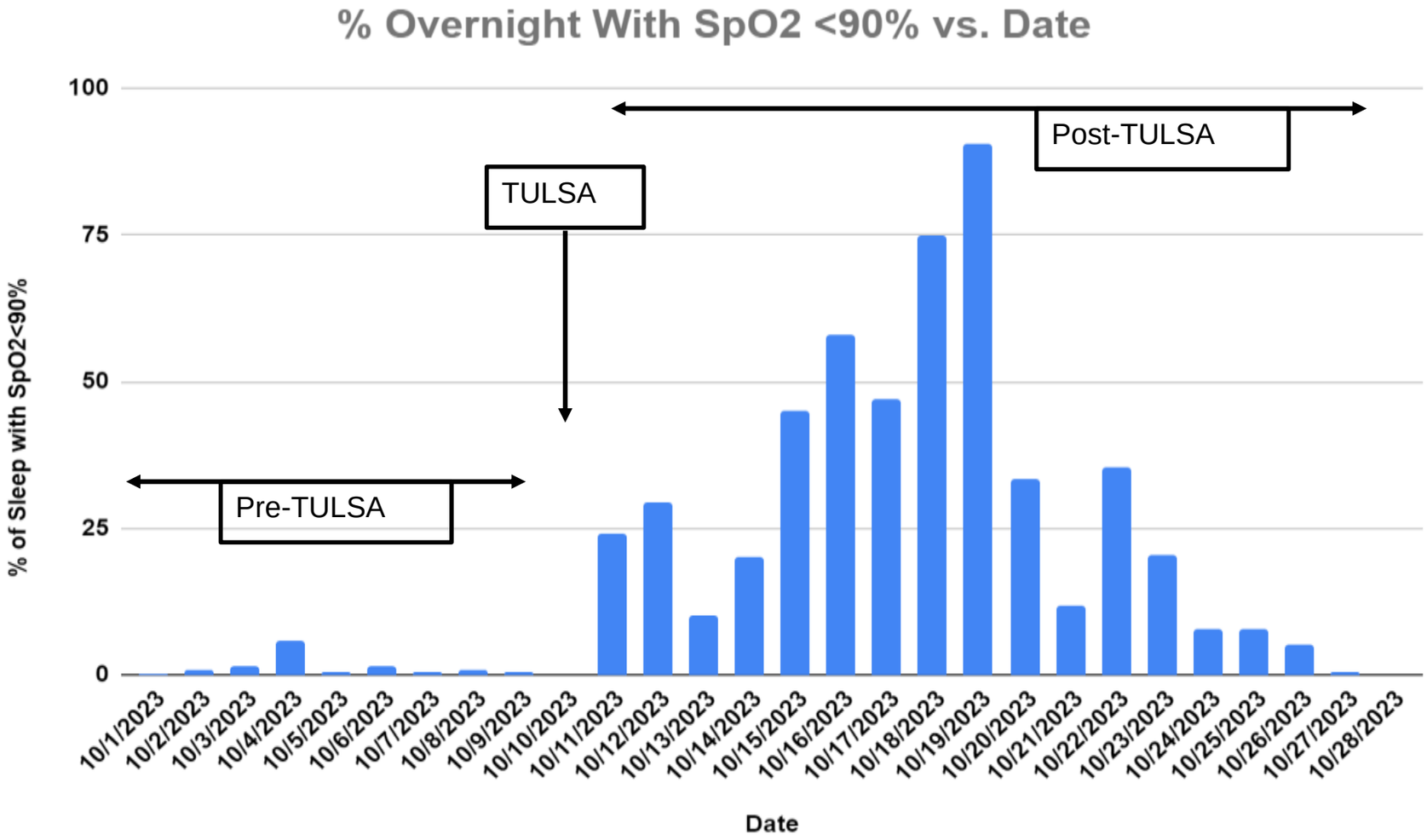
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Hours Per Night
My SpO2 Was <90%



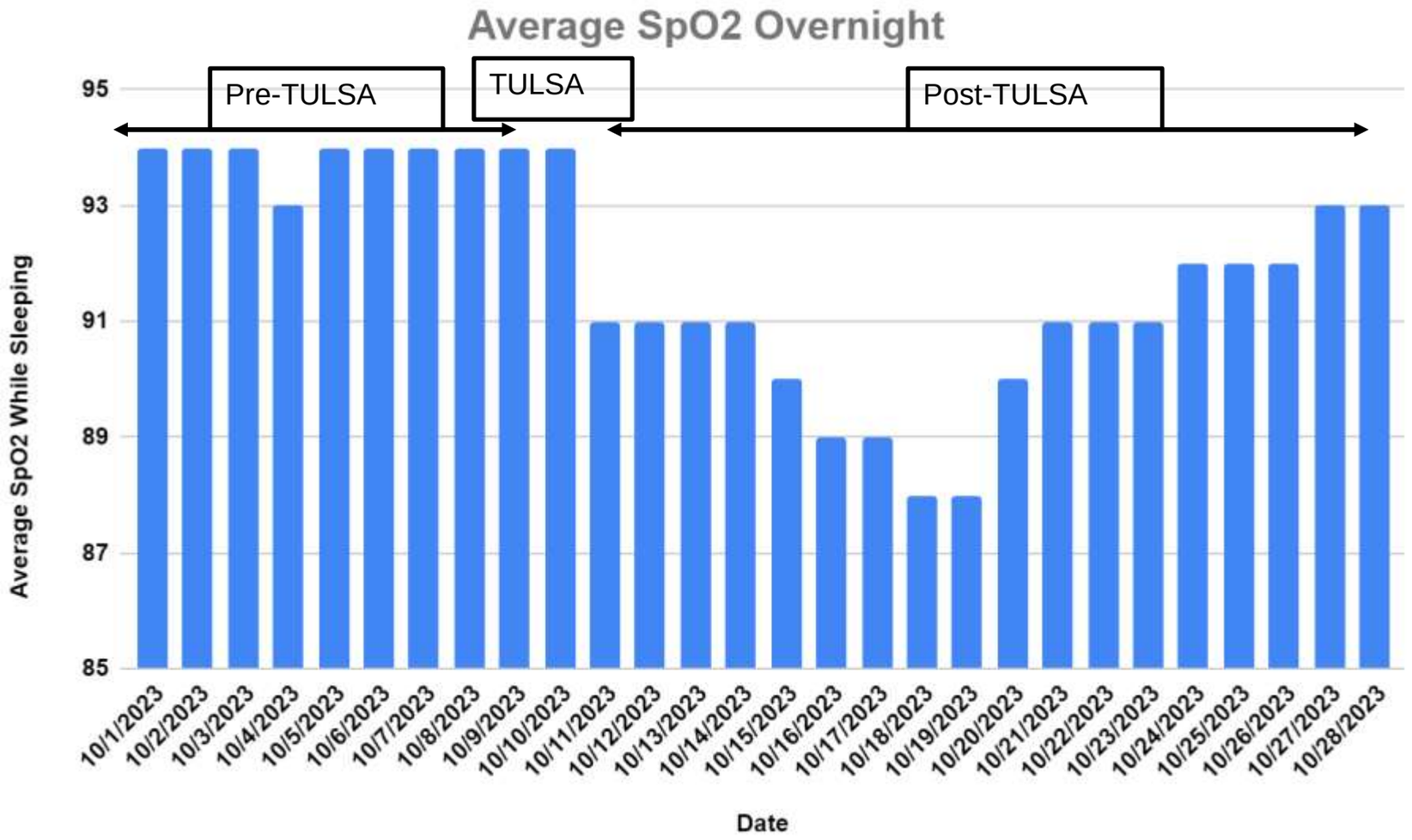
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% of Time Overnight
My SpO2 Was <90%



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My Average SpO2 Per Night



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The Literature Suggests Two Possible Causes: Post-Anesthesia and Antibiotics

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A Hospital Study of 1500 Patients After Noncardiac Surgery Used Continuous Pulse Oximetry to Quantify SpO2 Every Minute for 48 Hours

Anesth Analg. 2015 Sep; 121(3): 709–715.
doi: 10.1213/ANE.0000000000000836

Postoperative Hypoxemia Is Common and Persistent: A Prospective Blinded Observational Study

CONCLUSIONS:
Hypoxemia was common and prolonged
in hospitalized patients recovering from noncardiac surgery:

- 37% of patients had SpO2 <90% for an hour or more;
- 11% experienced at least 1 episode lasting ≥6 hours;

The SpO2 values recorded in medical records seriously underestimated the severity of postoperative hypoxemia.

Even if hypoxemia does not lead to respiratory arrest, it is a strong indicator of patient instability, compromises wound healing and promotes other serious complications, including brain dysfunction, dysrhythmias, and myocardial ischemia.

The SpO2 Decrease Could Be Enhanced by the Antibiotics

Bactrim ds and Oxygen saturation decreased - a phase IV clinical study of FDA data

Time on Bactrim ds when people have Oxygen saturation decreased

- < 1 month: 100 %
- 1 - 6 months: 0.0 %
- 6 - 12 months: 0.0 %
- 1 - 2 years: 0.0 %
- 2 - 5 years: 0.0 %
- 5 - 10 years: 0.0 %
- 10+ years: 0.0 %

Age of people who have Oxygen saturation decreased when taking Bactrim ds

- 0-1: 0.0 %
- 2-9: 0.0 %
- 10-19: 0.0 %
- 20-29: 5.0 %
- 30-39: 6.67 %
- 40-49: 6.67 %
- 50-59: 25.0 %
- 60+: 56.67 %

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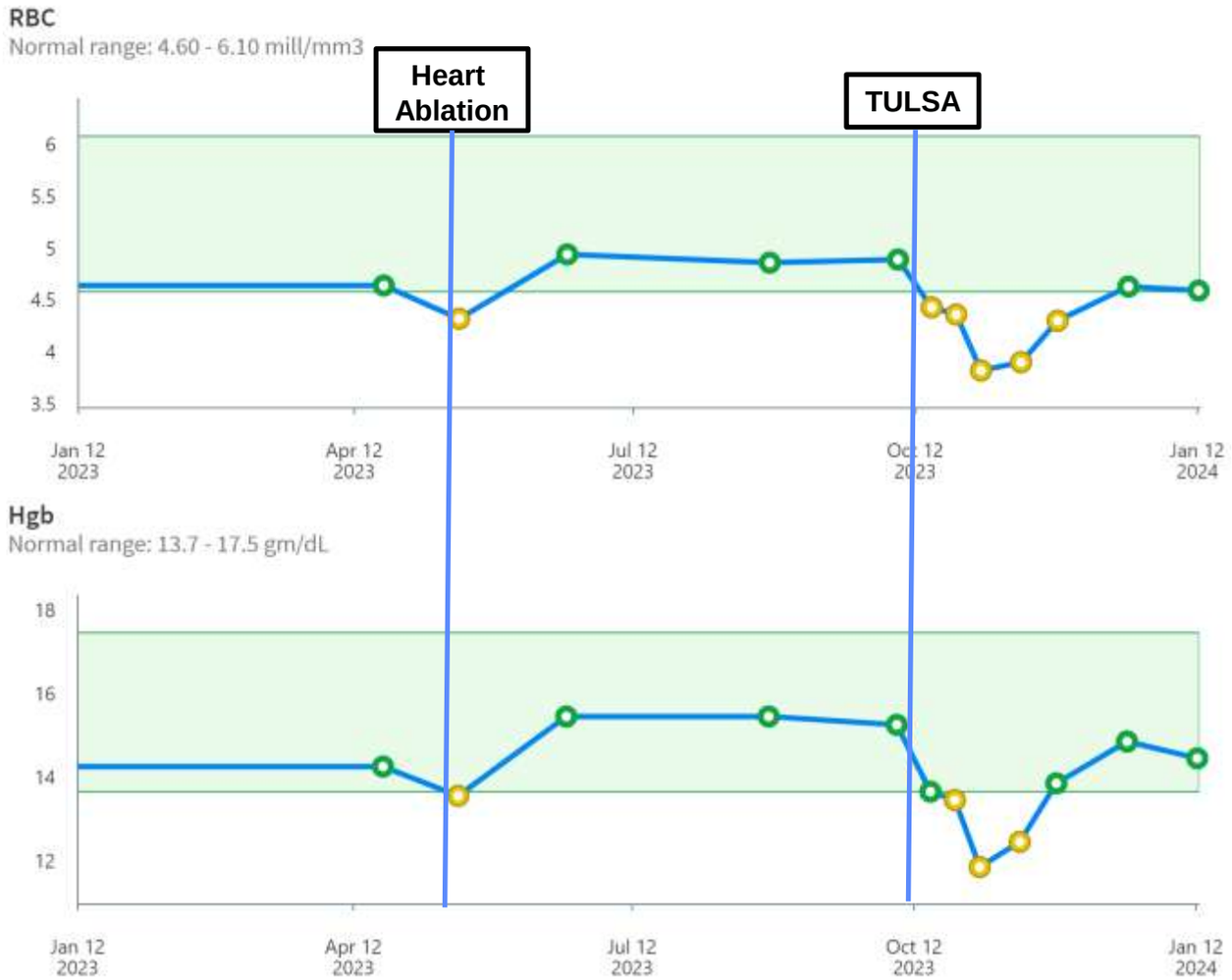
www.ehealthme.com/ds/bactrim-ds/oxygen-saturation-decreased/

Blood Biomarker Time Series

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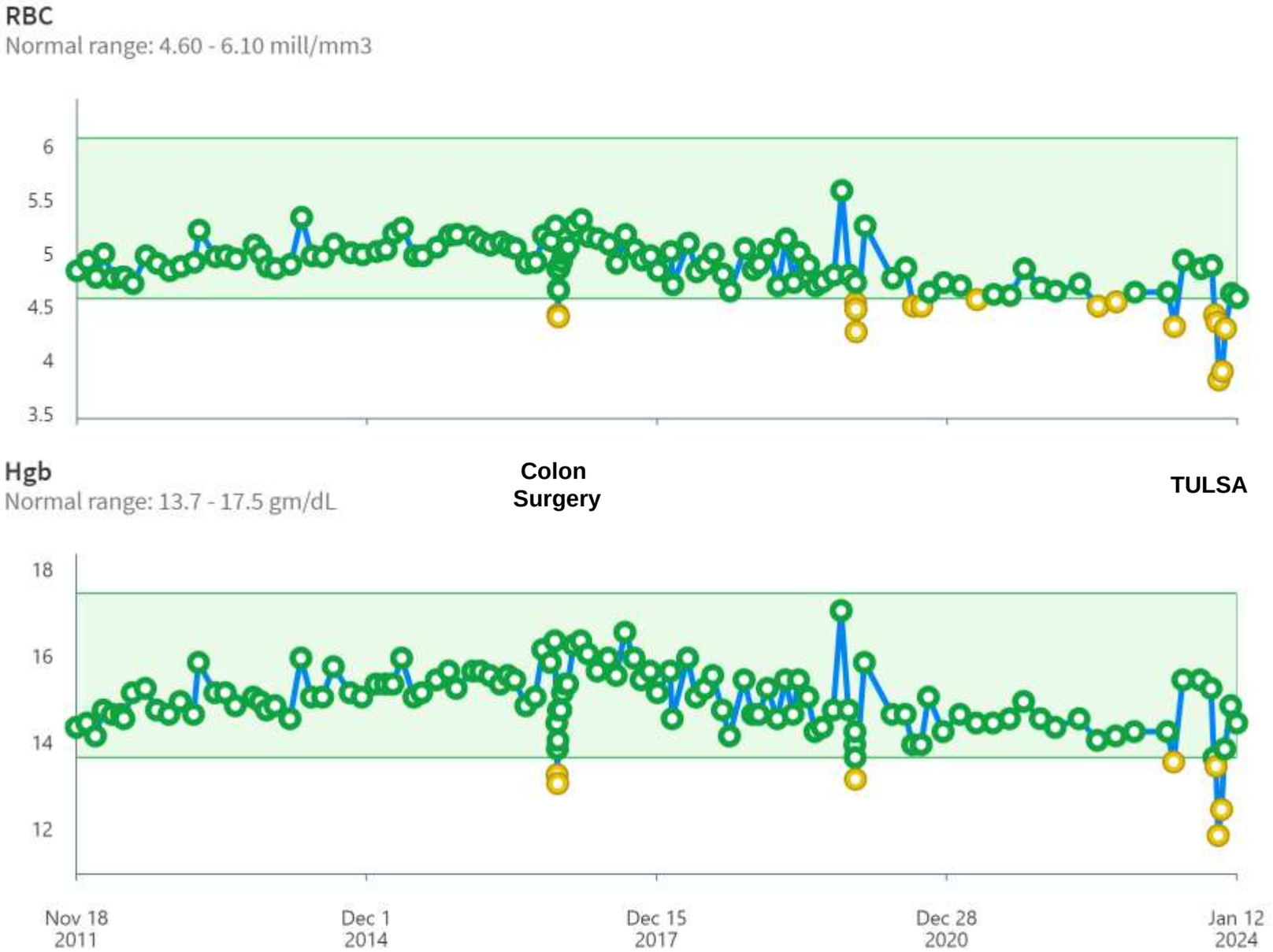
Post-TULSA
My RBC and HGB Decreased

Heart Ablation



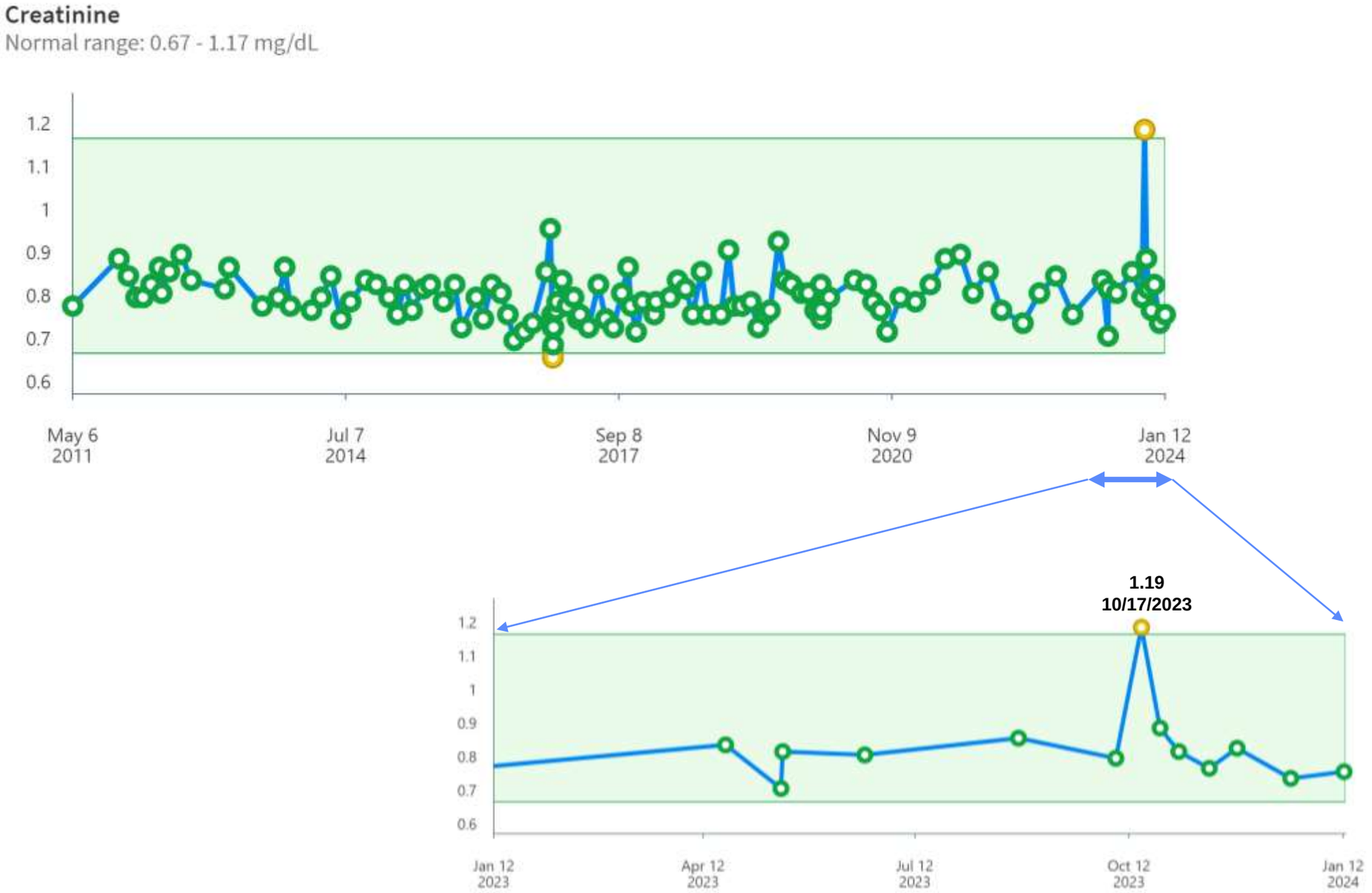
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The Post-TULSA Impact on My Red Blood Cells and Hemoglobin Was a Once in a Decade Event



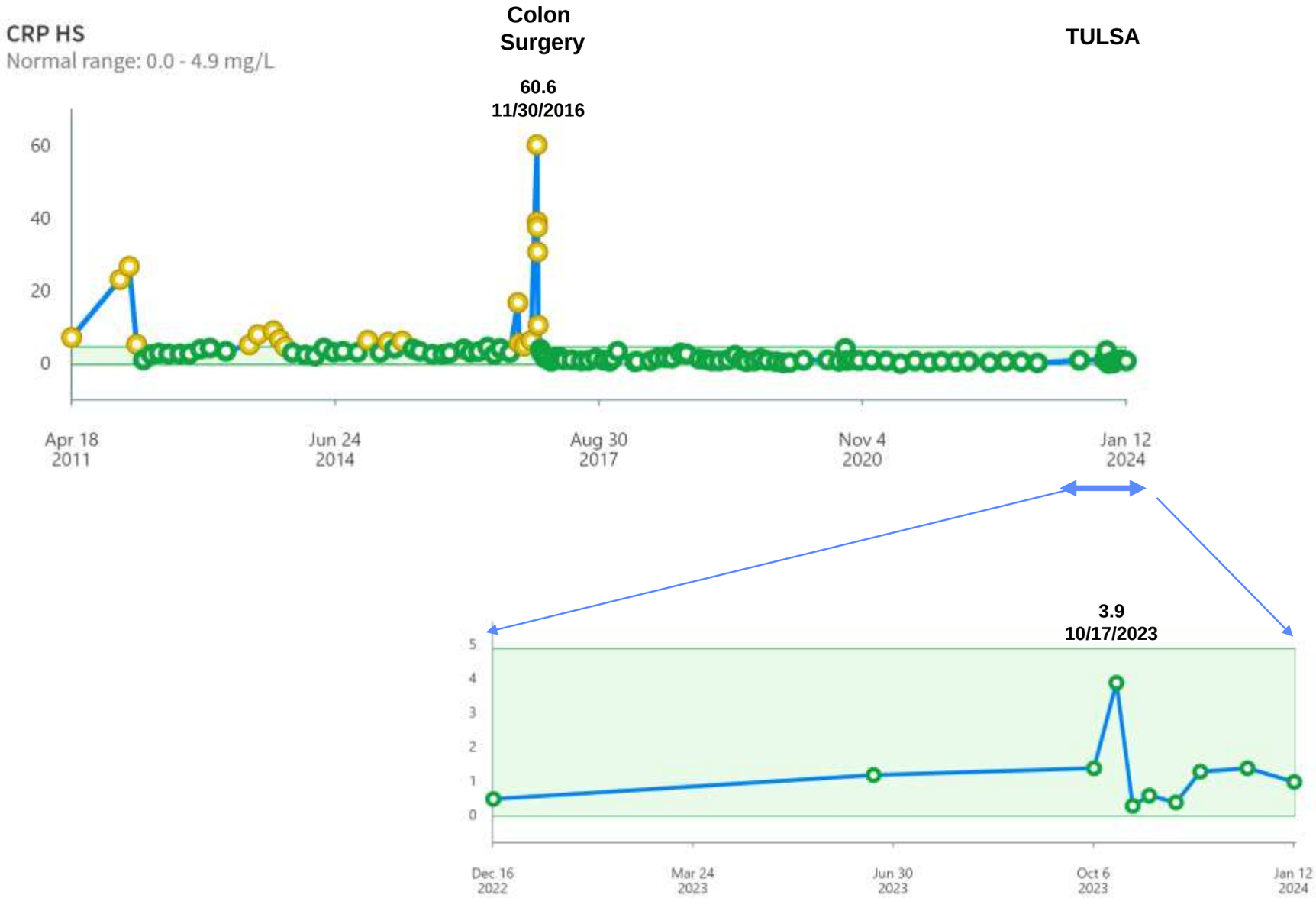
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Decade-High Creatinine Value One Week After TULSA Indicates Kidney Stress



LARRY SMARR

Fortunately, Systemic Inflammation is NOT a Post-TULSA Patient Impact



LARRY SMARR

Larry Smarr
Medical History

LS Body Stats

- Born October 16, 1948
  - Current Age 74
- Height 6 ft., Weight 176 lb, BMI 24
- Exercises and Has Healthy Diet
- Blood Pressure
  - 112/60; Resting Heartrate 40 bpm
  - amlodipine 5 mg + olmesartan 40 mg

Prior and Current Medical Issues:

- Gall Bladder Removal 1994
- Active Colonic Crohn's 2008-2016
  - Sigmoid Colon (6-8 inches) Resection 11/2016
- Sleep Apnea (CPAP Every Night Since 10/2020)
- Stroke 7/2019
  - 60x20mm Cerebral Infarct in the Right Posterior Temporal & Parietal Lobes
  - Statin- atorvastatin 40 mg
- Atrial Fibrillation 2019 to 2023
  - Anti-arrhythmic dofetilide (2020 to now)
  - Anticoagulant eliquis (2020 to now)
  - Heart Ablation May 2023
- Benign Prostatic Hyperplasia (BPH)
  - Urination 2-3 Times During Night
  - tamsulosin 0.4 mg