

Shebeck, Kaylee

MRN: 473484251

Hawkins, Samuel Douglas, MD

Consults  

Date of Service: 8/25/2022 11:30 AM

Fellow

Attested

Hyperbaric Medicine

Attestation signed by Tom, Michael B, MD at 8/25/2022 4:40 PM

Hyperbaric and Undersea Medicine Attending Attestation of Consultation

I have personally seen and examined the patient, and formulated an impression and medical decision-making in conjunction with Dr. Hawkins. I reviewed the medical records available including the documented data. I agree with the history, physical exam, and medical decision-making, except where noted below.

Kaylee Shebeck is presenting for fitness to dive evaluation.

Open water cert dives in May of this year. Noted 2 dives to 20' for 20min with 15 min SIT. Noted tingling in hands after waking next morning after dives. No events during dives. No rapid or uncontrolled ascent. No strenuous swimming during dives.

7/30 completed dive in Rhode Island she reports was 13ft for 21 minutes. 10 min after surfacing noticing weakness in legs. States dive buddy noted that she was unsteady on feet and unable to climb into truck when attempting to leave. Sxs generally improved though she notes some persistent generalized weakness to date and feels balance is slightly off since. Pt also noting difficulty urinating the night of the dive which has resolved.

Also notes brain fog and generalized fatigue after all dives.

No other dives or c/f dive injuries.

Dive profiles make DCS extremely unlikely though theoretically possible if PFO is present. Extensive conversation with pt regarding risks/ benefits of PFO evaluation and implications should PFO be discovered. Pt reports she already has bubble study scheduled for October this year after visit with her PMD.

Alternatively and even less likely still, underlying pulmonary disease such as bleb or bullae could theoretically predispose her to pulmonary barotrauma even with safe ascent rates and symptoms in this scenario could be related to AGE. This is favored unlikely at this time. Will obtain CXR to eval for any pulmonary disease and consider CT/PFT's if any pathology discovered.

Pt also notes history of anxiety for which she is on lexapro and lamictal. Discussed ideal scenario for diving is to not be on medications if weaning is medically appropriate and if pt wishes to pursue higher level diving as she reports. Pt expresses understanding. Lexapro can lower seizure threshold which is not compatible with any form of diving.

Unclear etiology of pt's symptoms. Symptoms potentially explained by anxiety vs. MSK soreness in s/o exertion v dehydration, however these will all need to be considered diagnoses of exclusion. While DCI seems very unlikely based on pt's dive profiles and lack of reported incident which would predispose her to AGE, chronology of symptoms in relation to breathing compressed gas at depth make DCI part of differential.

Appropriate screening and procedural precautions have been taken to mitigate any potential COVID exposures according to the HBO Division policies.

Recommendations:

1. **The patient is not fit to dive at present and expresses understanding of this. Need for further workup of recent post diving incidents is required. Also lexapro use concurrent with diving is not recommended due to seizure risk.**
2. **Given recently described symptoms in relation to diving, safest course recommended would be to stop diving.**
3. **If desiring to continue diving, requires CXR, bubble study, potentially further pulmonary evaluation, consideration for medication adjustment, and follow up discussion with us after these studies have been obtained. Will require gradual and very conservative reintroduction to diving should these studies not reveal any pathology or pfo. Patient states she plans to consider cessation altogether though also reports desire to pursue career in dive science research. Encouraged careful and thorough evaluation in coordination with us if she is to return to diving.**

Michael B Tom, MD

Hyperbaric Medicine Consultation

Consults

Reason for HBO Consult Request:

1. **Issue of fitness certificate**

ICD-10-
CM
Z02.79

Provider requesting consultation: Self, Referral

History of present illness:

Kaylee Shebeck is a 20 y.o. female who presents for consultation given multiple symptoms following ascent after a dive.

PMH: anxiety and OCD

PSH: none

Pt has had symptoms with diving since February. She notes a headache following ascent which she describes as a CO2 headache. These largely improved with time. The headaches worsened with additional dives and ibuprofen was required. The pt never went further than 20

feet or for longer than 20 minutes. She usually had two dives per session. At times she felt that she would ascend than planned.

At the end of July, the pt had recently certified and had a dive off of Rhode Island. She felt anxious and consequently had a poor night of sleep. The depth was 13 feet for 21 minutes with an average depth of 9 feet. The pt began to feel dizziness at depth and aborted the dive. Ten minutes after servicing she was endorsing brain fog and had an episode where her legs gave out. She noted paresthesias in her hand bilaterally with accompanying myalgia and arthralgia. While attempting to get into her truck, she had difficulties due to weakness. The following day she felt off balance but the remainder of her symptoms largely resolved.

The pt has since followed up with her PCP who ordered an ECHO and bubble study. The echo was reported to be normal. The bubble study is in October. The pt also reached out to DAN who recommended official evaluation by a diving specialist.

Review of Systems

Constitutional: Positive for fatigue.

HENT: Negative for congestion, ear pain, rhinorrhea, sinus pressure and sinus pain.

Respiratory: Negative for cough, chest tightness and shortness of breath.

Cardiovascular: Negative for chest pain and palpitations.

Gastrointestinal: Negative for abdominal pain and nausea.

Genitourinary: Negative for dysuria, flank pain and hematuria.

Musculoskeletal: Positive for arthralgias and myalgias.

Skin: Negative for rash.

Neurological: Positive for dizziness, weakness, numbness and headaches. Negative for syncope.

Psychiatric/Behavioral: Negative for suicidal ideas. The patient is nervous/anxious.

BP 122/87 , Pulse 96 , Temp 98.3 °F (36.8 °C) , Resp 18 , Ht 5' 4" (1.626 m) , Wt 148 lb (67.1 kg) , BMI 25.4 kg/m² , SpO₂ 100%

Physical Exam

Constitutional:

General: She is not in acute distress.

Appearance: Normal appearance.

HENT:

Right Ear: Tympanic membrane normal.

Left Ear: Tympanic membrane normal.

Nose: Nose normal.

Mouth/Throat:

Pharynx: Oropharynx is clear.

Eyes:

Extraocular Movements: Extraocular movements intact.

Conjunctiva/sclera: Conjunctivae normal.

Cardiovascular:

Rate and Rhythm: Normal rate and regular rhythm.

Pulses: Normal pulses.

Heart sounds: Normal heart sounds.

Pulmonary:

Effort: Pulmonary effort is normal.

Breath sounds: Normal breath sounds.

Abdominal:

Palpations: Abdomen is soft.

Musculoskeletal:

General: Normal range of motion.

Cervical back: Normal range of motion.

Skin:

General: Skin is warm and dry.

Capillary Refill: Capillary refill takes less than 2 seconds.

Neurological:

General: No focal deficit present.

Mental Status: She is alert.

Psychiatric:

Mood and Affect: Mood normal.

Prior HBOT: no

Medical Decision Making/Data Reviewed:

Impression

XR CHEST 2 VIEWS

Impression

No evidence of active disease in the chest.

ATTENDING PHYSICIAN AGREEMENT [ATT05]:

I have personally reviewed the images and agree with this report.

Plan:

This is a 20 yo female who presents with largely resolved symptoms following a dive. Pt continues to feel off-balance and does not feel as strong as she once was. Etiology of symptoms is unlikely to be related to DCS given dive profiles. It is possible the pt could have a PFO or ruptured bleb that lead to her symptoms. Anxiety related etiologies do not fully explain the pt's symptoms but likely contribute. Pt to be evaluated with a bubble study and chest xray. Should the CXR be abnormal, CT imaging to be obtained. Until further notice and evaluation, the pt was asked to not dive. Pt is amenable to this plan.

Cosigned by: Tom, Michael B, MD at 8/25/2022 4:40 PM

Electronically signed by Tom, Michael B, MD at 8/25/2022 4:40 PM

Consult Visit on 8/25/2022

Additional Documentation

Vitals: BP 122/87 Pulse 96 Temp 98.3 °F (36.8 °C) (Oral) Resp 18 Ht 5' 4" (1.626 m)

Wt 148 lb (67.1 kg) SpO2 100% BMI 25.40 kg/m² BSA 1.72 m²

Flowsheets: COVID Symptom and Exposure Screening, Vitals Reassessment,

OSA Symptomless Calculation, LACE + SCORE

Orders Placed

XR CHEST 2 VIEWS (Resulted 8/25/2022)

Medication Changes

As of 8/25/2022 12:05 PM

None

Visit Diagnoses

Primary: Issue of fitness certificate Z02.79