

## Putting it All Together #2

41-year-old female with Spinal Stenosis with neurogenic claudication (**M48.062**) at L3-L4 and radiculopathy (**M54.16**), new onset foot drop (**M21.379**), underwent Lumbar Laminectomy Sept 17, 2024. Patient with same symptoms prior to surgery and new onset urinary incontinence (**R32**). Continuing treatment for COVID 19 (**U07.1**)

Motor Score: 50

# What's Your Answer?

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

## Putting it All Together #3

42 y/o Right-handed male overall quite weak, amputation of all toes on the right foot, and second toe on the left foot, on peritoneal dialysis (**Z99.2**), cognitive difficulties (**R41.9**), atrophy of bilateral hands (**M62.541, M62.542**), generalized weakness, diabetic neuropathy (**E11.40**), ESRD (**N18.6**), HTN (**I12.0**), HLD (**E78.5**), GERD (**K21.9**).

**Motor Score: 31**

# What's Your Answer?

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

## Putting it All Together #5

Patient has severe PVD associated to diabetes type 2 with gangrene (**E11.52, I96**). Patient had a right AKA now to rehab. Comorbidities include COPD (**J44.9**), Chronic Systolic Heart Failure (**I50.22**), Morbid Obesity (**E66.01**) with a BMI of 33, (**Z68.33**) and acute blood loss anemia post op (**D62**).

Motor Score: 40

# What's Your Answer?

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

# Putting it All Together #6

59 y/o male admitted with HTN (I10), DM2 uncontrolled (Query E11.65 vs E11.649) due to dietary and medication non-compliance (Z91.148, Z91.119), found with a compression fracture of L3-L4 (S32.030A, S32.040A), not a surgical candidate, orthopedic surgeon refers for rehab and provided injection. The main barrier to his rehab course is lower back and extremity pain. Patient reports pain at 11 out of ten at all times and will need PT and OT to gain confidence in his ability to ambulate through his lower back pain. Evaluate and manage pain medications.

Motor Score: 48

# What's Your Answer?

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

# Case Study 4 – Breakout

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

**Coder Summary:**

**Principal Diagnosis:**

S32.059B Unsp fracture of fifth lumbar vertebra, init for opn fx

**Secondary Diagnoses:**

S31.811D Laceration w/o foreign body of right buttock, subs encntr

R26.2 Difficulty in walking, not elsewhere classified

R29.898 Oth symptoms and signs involving the musculoskeletal system

R53.1 Weakness

S32.049D Unsp fx fourth lum vertebra, subs for fx w routine healing

D72.829 Elevated white blood cell count, unspecified

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**Pre-Admission Screening**

**Etiology:** L4-L5 spinal fractures due to gunshot wound of the spine, intradural bullet, paraparesis, subdural hematoma

**Date of screening:** 3/09/22

A 34 year old male who presented to the ED with a gunshot wound to the back, overlying the buttock. At a party when it occurred but had no alcohol found in his system. Impression: gait disturbance, right leg weakness, s/p laminectomy L4-L5, L5-S1 due to gunshot wound, previous craniotomy. No obvious spinal cord or bladder issues.

**ADMISSION MOTOR SCORE:** 28

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**History and Physical**

**\* Final Report \***

Patient: [PATIENT]

Age: **34 years** Sex: **Male** DOB: [removed]

Associated Diagnoses: **Right leg weakness; Abnormal gait; Gunshot wound of right side of back with complication**

**Date of Service:** 03/11/2022.

**Chief Complaint**

**Reason for Rehab**

right leg weakness with difficulty walking

**History of Present Illness**

34-year-old gentleman who presented to [Hospital] after a gunshot wound to the right buttock/low back. He states that he was at a party where he was shot in the right buttock and lower back. He describes pain in his lower back with 7/10 in intensity without radiation, but had some numbness and paresthesias in the right foot. No bowel or bladder symptoms were reported. He was taken to the operating room by [Dr H-] on March for L4-5 spinal fractures, intradural bullet and paraparesis. He had L4-5, L5-S1 laminectomy with excision of the bullet from the intradural space and removal of subdural hematoma, repair of dural laceration was also done. Postoperatively, he has done well. He has some weakness residual in the right leg. No bowel or bladder problems. PT/OT has assessed the patient and he is still needing assist with ADLs and ambulation. Patient is transferred to IPR unit today to regain independence.

**Social & Psychosocial Habits**

**Alcohol Use:** Current  
**Type:** Liquor

**Substance Abuse**  
**Use:** Current  
**Type:** Marijuana

**SOCIAL HISTORY:** Lives with his girlfriend in an apartment where there are 3 steps to enter the building and one flight of stairs to his apartment. He was totally independent without assistive device prior to admission.

**Physical Examination**  
**VS/Measurements****Vital Signs**

03/11/2022  
14:29

Heart Rate (bpm)

91 bpm

Pulse Oximetry

96

Oxygen Therapy

Room air

Respiratory Rate

20 BrPM

Systolic Blood

124 mmHg

Pressure

67 mmHg

03/11/2022  
14:29

Diastolic Blood

03/11/2022  
14:27

Pressure

**General:** Alert and oriented, No acute distress.

**Eye:** Pupils are equal, round and reactive to light.

**HENMT:** Normocephalic.

**Neck:** Supple.

**Respiratory:** Lungs are clear to auscultation, Respirations are non-labored, Breath sounds are equal.

**Cardiovascular:** Normal rate, Regular rhythm, No murmur, No gallop.

**Gastrointestinal:** Soft, Non-tender, Non-distended, Normal bowel sounds.

**Integumentary:** right low back incision is healing without any drainage, right upper medial buttock GSW entrance wound.

**Mental status/ Cognition**

Alert.

Oriented x 4.

Speech and language intact.

Cognition intact.

**Psychiatric:** Cooperative, Appropriate mood & affect.

**Cranial Nerves:** Cranial nerves II - XII grossly intact.

**Sensorimotor/ Reflexes**

Motor examination, upper extremity strength is good. Left lower extremity strength is good. Right lower extremity strength is limited in hip flexion due to pain, but also limited in right gluteus medius strength, hamstrings and dorsiflexors. Dorsiflexors are over 5, hamstrings are 2/5, gluteus medius is also 1-2/5. Remainder of the exam is 4/5 or better in the right leg.

Dysesthesias are noted with numbness in the right foot, more so on the dorsum of the foot. Cerebellar exam is intact in the upper extremities.

**Review / Management****Results review:**

Lab results

03/10/2022 21:05

Sodium	139 mMol/L
Potassium	3.5 mMol/L
Chloride	100 mMol/L
Carbon Dioxide	30 mMol/L
Anion Gap	9 mMol/L
Glucose	135 mg/dL HI
Urea Nitrogen (BUN)	14 mg/dL
Creatinine	0.96 mg/dL
Calcium	9.0 mg/dL
GFR for African Amer	112 mL/min/1.73 m <sup>2</sup>
GFR for Other Races	93 mL/min/1.73 m <sup>2</sup>
WBC	12.9 K/CUMM HI
RBC	3.80 M/CUMM LOW
Hemoglobin	11.1 gm/dL LOW
Hematocrit	34.5 LOW
MCV	90.8 FL
MCH	29.2 pg
MCHC	32.2 LOW

**Impression and Plan****Diagnosis**

Right leg weakness (ICD-10-CM R29.898, Admitting, Medical).

Abnormal gait (ICD-10-CM R26.9, Admitting, Medical).

Gunshot wound of right side of back with complication (ICD-10-CM S21.201A, Admitting, Medical).

**Impairments:** Monoparesis.**Disabilities/Handicaps:** Decreased: Mobility, Ability to self-care.**Limiting factors:** Pain.**Safety/Precautions:** Weight bearing: As tolerated.**Nursing goals:**

Medication monitor for treatment: Effects, Adverse reactions.

Bladder: Continent.

Bowel: Continent.

Skin: Wound healing.

Pain/Sleep: Decrease pain level.

**Occupational therapy goals:** Modified independent, Equipment/ DME assessment.

Preliminary Plan of Care: OT therapy 5-6x/week for 0.5 - 2.5 hours, 7 days of therapy.

**Physical therapy goals:** Equipment/DME assessment.

Preliminary Plan of Care: PT therapy 5-6x/week for 0.5 - 2.5 hours, 7 days of therapy.

**Pt/Family Goals:** Return to pre-morbid status.**Rehab Prognosis:** Excellent.**Code Status:** Full code.**Stable for IPR:** Yes.**Medical Plan**

DVT prophylaxis

: low molecular weight heparin.

Pain: neuropathic, postoperative, controlled.

Estimated length of stay: 7 days.

Disposition: home with caregiver.

**Medical Necessity:** 24 hour rehabilitation nursing due to: skin/ wounds and pain management.  
24 hour physician services due to: Pain.

### Post Admission Physician Evaluation:

Documentation Reviewed: I have reviewed the Preadmission Screen.  
Functional status documented at preadmission: I agree with the patient's current functional status as documented in the preadmission screening.  
Risk for complications: I agree with the risk for clinical complications documented in the preadmission screening.  
Medical conditions: The patient's medical conditions can be managed in the rehab hospital.  
Patient participation in therapy: The patient can participate in, and will benefit from an intense therapy program at least 3 hours per day / 5 days per week. Therapies/services include:, Physical therapy, Occupational therapy, Rehabilitation Nursing, Psychology.

### IMPRESSION/PLAN:

- Gait disturbance.
  - Right leg weakness.
  - Status post laminectomy L4-L5, LS-S1 due to gunshot wound.
    - continue with comprehensive IP rehabilitation program 3 hours/day including PT/OT/Rehab RN to work on gait, transfers, self care, wound care, bowel/bladder care
    - wound care
    - monitor bowel and bladder function
    - pain management
  - Leukocytosis
    - no evidence of infection, trending down
  - DVT ppx
    - Lovenox
- 

Patient: [PATIENT]  
Age: **34 years** Sex: **Male** DOB:  
Associated Diagnoses: **None**

**Date of Service:** 03/14/2022

### Basic Information

Pt is S/P GSW to R. buttock and low back which required surgical intervention for spinal fractures and the removal of a bullet in the intradural space. Pt. has R. leg weakness.

He is alert and fully oriented and able to give a coherent history. He said he lost consciousness at some point in the shooting incident but he did not sustain a head trauma and he does not notice any cognitive or memory changes now. He denied any signs of depression and he denied anxiety. He was hesitant at first to talk about the incident itself but did eventually give his account of what happened. He said he had pain but did not specify the level. He felt he was doing well in therapy so far. He voiced his intention to avoid the circumstances that surrounded his injury. He seemed to have goals for the future but may need reassurance as he progresses in treatment. I will monitor his emotional adjustment during his rehabilitation stay.

OX. Rule out Adjustment Reaction with anxiety.  
F43.22

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### Progress Note

Patient: [PATIENT]  
Age: **34 years** Sex: **Male**  
Associated Diagnoses: **None**

Date of

Service:

03/15/2022

**Subjective**

CC: weakness

Subjective: Patient reports drainage from lumbar wound. No fevers, chills. No new complaints of chest pain, shortness of breath, no difficulty eating, no swelling and no headaches.

### Impression and Plan

- Gait disturbance/Difficulty walking
  - Right leg weakness due to right sciatic nerve injury.
  - Status post laminectomy L4-LS, LS-S1 due to gunshot wound.
    - continue with comprehensive IP rehabilitation program 3 hours/day including PT/OT/Rehab RN to work on gait, transfers, self care, wound care, bowel/bladder care. PT and OT evals reviewed/discussed. -wound care
  - monitor bowel and bladder function
  - 3/13:Transfers and sit to stand are Min assist at this time
  - 3/14: current status noted, continue IPR
  - 3/15: patient observed walking to sink for ADLs, excellent progress., continue progress, monitor wound, no evidence of infection
  
  - borderline low K+  
3/13 Reck lytes at 2100: Discussed with RN  
3/14: K-4.0
  
  - pain management: Continue norco 10/325 which was started 3/12 due to pain increased.  
3/13 discussed with RN: last norco 10 dose given today 5am  
3/14: better pain control with inc in pain meds
  
  - Leukocytosis
    - no evidence of infection, trending down
  - 3/13 repeat cbc
  - 3/14: WBC 11.9; trending down, VSS, afebrile
  
  - DVT ppx
    - cont Lovenox
  
  - Prognosis:  
Good  
ELOS 1-2 weeks
-

**Discharge Summary:** 3/16/22

**Date of admission:** 3/11/22

**Discharge diagnoses:**

- Right leg weakness
- Abnormal gait
- Gunshot wound of right side of back with complication
- Diabetes

Patient discharged to home with family.

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**IGC:**

**ETIOLOGIC:**

**TIER:**

**60% QUALIFIER:**

**COMMENTS:**

# Case Study 7 – Breakout

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

**Coder Summary:**

**Admitting Diagnosis:**

G90.523 Complex regional pain syndrome I of lower limb, bilateral

**Principal Diagnosis:**

G90.523 Complex regional pain syndrome I of lower limb, bilateral (DRG)

**Secondary Diagnoses:**

G62.9 Polyneuropathy, unspecified

G82.22 Paraplegia, incomplete (CC excluded)

E66.9 Obesity, unspecified

N80.9 Endometriosis, unspecified

B27.00 Gamma herpes viral mononucleosis without complication

F44.6 Conversion disorder with sensory symptom or deficit

G89.4 Chronic pain syndrome

R26.2 Difficulty in walking, not elsewhere classified

R60.0 Localized edema

F43.21 Adjustment disorder with depressed mood

M47.816 Spondylosis w/o myelopathy or radiculopathy, lumbar region

Z87.442 Personal history of urinary calculi

M62.838 Other muscle spasm

G47.9 Sleep disorder, unspecified

R30.0 Dysuria

R11.0 Nausea

R39.15 Urgency of urination

Z79.891 Long term (current) use of opiate analgesic

**Pre-Admission Screening:**

**Etiology:** G62.9 chronic pain syndrome, polyneuropathy, G89.4

**Date of screening:** 3/14/22

A 35-year-old female who was well until approximately 3 months prior when she developed a complication from UTI associated with kidney stones. Since then, patient has had an exacerbation of her previously

diagnosed regional pain syndrome, which she had as a child with associated neuropathy, increased difficulty with walking and increased severity of pain to the lower extremities. She woke up early yesterday morning and was unable to move her legs. At that point, EMS was activated and patient eventually was transferred to our facility.

**Impression and comorbidities:** Lower extremity graft paralysis, possibly psychogenic pending lumbar MRI, complex pain syndrome, generalized anxiety disorder, chronic neuropathy, chronic EBV infection, endometriosis

**ADMISSION MOTORSCORE: 25**

**History and Physical**

DATE OF SERVICE:

03/16/2022

**CHIEF COMPLAINT:**

Leg weakness.

**HISTORY OF PRESENT ILLNESS:**

This is a 34-year-old female with complex pain issues, who states she has chronic regional pain syndrome, but currently she had a stent placed because of ureteral stone, which flared up her lower extremity weakness.

She said the last time she walked was 2 days ago \_\_\_\_\_ move her legs all and usually when she has one leg and not as bad. She states she is unable to walk, so she came in to the hospital where routine investigations were done including MRIs, but this did not show anything acute or anything causing her leg paralysis. Her arms are also little weak and little tingly. She is still complaining of significant back pain and she goes to a pain management doctor and she was also diagnosed with chronic regional pain syndrome. The patient is now admitted for further evaluation and treatment.

**PAST MEDICAL HISTORY:**

Significant for chronic pain, endometriosis, chronic neuropathy, chronic EBV infection, polyneuropathy, obesity, lumbar spondylosis, sleep disorder

**PAST SURGICAL HISTORY:**

Significant for exploratory laparotomy, cholecystectomy, appendectomy, L5-S1 laminectomy, ureteral stent placement and over 30 epidural steroid injections.

**FAMILY HISTORY:**

Reviewed, significant for coronary artery disease, CVA, diabetes and lung cancer.

**REVIEW OF SYSTEMS:**

A 14-point review of systems is negative except for the significant back pain and lower extremity paralysis as described in the HPI. She denies any fecal or urinary incontinence.

**SOCIAL HISTORY:**

She does not smoke. Occasionally drinks. Does not use any illicit drugs.

**ALLERGIES:**

BACLOFEN.

**PHYSICAL EXAMINATION:**

Vitals: Temp is 97, pulse 93, regular, respirations 18, blood pressure 113/73, O2 sat 97. On examination, she is currently lying comfortably on the bed in no acute distress. HEENT: Atraumatic, normocephalic. Mucous membranes are moist. Neck: Supple. Heart sounds normal and regular. Lungs sounds are clear. Abdomen: Soft, nontender. Extremities: No acute deformity, edema or cyanosis noted. Skin: Warm and dry. Neuropsych: She is euthymic, alert, awake, oriented x 3. Cranial nerves II through XII grossly intact. Power is 4/5 in the upper extremities, 0/5 in the lower extremities with normal reflexes and sensations.

**LABORATORY DATA:**

White count 7.9~ hemoglobin 13, platelets 199. Prealbumin 29, BUN and creatinine of 20 and 0.9. Sodium 142, potassium 4.1. MRI of the C-spine does not show anything acute. MRI of the brain was negative. MRI of T-spine was negative. The lumbar spine does not show an acute, but it shows DJD and disk disease at the lumbar levels.

**ASSESSMENT:**

1. Chronic regional pain syndrome.
2. Lower extremity paralysis secondary to the above.
3. Chronic pain.
4. Neuropathy .
5. Chronic EBV infection.
5. Obesity.
6. Endometriosis.

**PLAN:**

The patient is currently admitted to IRF. She will continue with the transfer medications. In the meantime, PT, OT will come and evaluate the patient's to see how she does. Plan has been discussed with the patient.

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**Progress Note 3/15/22**

**Subjective:** Patient says she's had no changes. Pain management doctor says no changes to the current treatment are necessary.

**Objective:** Temperature 97.9, Pulse 93, BP 113/73, Respiratory Rate 18 and saturations 97%.

**Impression:**

- 1) Bilateral lower extremity paralysis-intact sensation-working diagnosis is conversion disorder
  - 2) Chronic EBV
  - 3) Pain
- 

**Psychology Consult: 3/16/22**

**Subjective:** Working diagnosis is conversion disorder as her physical presentation is not consistent with a medical diagnosis. She does have some risk factors for a psychogenic condition, but it is too soon to be definitive from my perspective. The differential diagnosis would be factitious disorder.

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**Discharge Summary:** 3/30/22

**Date of Admission:** 3/15/22

**Discharge diagnoses:**

- Chronic regional pain syndrome, severe
- Paraplegia secondary to the above with intense psychological overlay
- Chronic pain syndrome
- Chronic EBV infection
- Peripheral neuropathy
- Obesity
- Endometriosis
- Gravity dependent, lower extremity edema.

Discharge to SNF.

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**IGC:**

**ETIOLOGIC:**

**TIER:**

**60% QUALIFIER:**

**COMMENTS:**

# Case Study 8– Breakout

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

**Coder Summary:**

**Admitting Diagnosis:**

M48.56XA Collapsed vertebra, NEC, lumbar region, init (DRG)

**Principal Diagnosis:**

M48.56XA Collapsed vertebra, NEC, lumbar region, init (DRG)

**Secondary Diagnoses:**

N390 Urinary tract infection, site not specified (CC) (DRG)

M54.5 Low back pain

G62.9 Polyneuropathy, unspecified

R53.1 Weakness

M62.830 Muscle spasm of back

I10 Essential (primary) hypertension

E78.5 Hyperlipidemia, unspecified

Z79.01 Long term (current) use of anticoagulants

E87.6 Hypokalemia

B96.20 Unsp Escherichia coli as the cause of diseases classd elswhr

**Pre-Admission Screening**

**Etiology:** Recent total hip arthroplasty with a readmission for encephalopathy and disorientation and a greater weakness.

**Date of screening:** 2/15/22

Patient is an 86 year old female who has a PMH significant for severe peripheral neuropathy with history of related multiple falls. Patient stated she was standing up tying her bath robe when she lost her balance and fell backward onto the floor on her back. Taken to emergency room immediately. CT of the spine revealed a superior endplate compression fracture of L1 which appears likely to be acute. Patient was admitted and underwent kyphoplasty.

**Comorbidities:** L1 vertebral closed compression fracture s/p kyphoplasty, severe peripheral neuropathy, chronic kidney disease, possible hypertensive nephropathy, HTN, CAD s/p lateral MI, no PCI, OA, HLD, back pain, constipation

**ADMISSION MOTOR SCORE:** 26

**HISTORY AND PHYSICAL AND POST-ADMISSION PHYSICIAN EVALUATION**

**DATE OF ADMISSION:** 2/16/22

**CHIEF COMPLAINT:** Back pain secondary to L1 compression fracture and weakness due to polyneuropathy.

**HISTORY OF PRESENT ILLNESS:** [Patient] is an 86-year-old white female with a history of severe peripheral neuropathy. Her husband reports that it is "idiopathic" and that there has been no history of diabetes and she has had this diagnosed for several years. She has progressively gotten weaker with regard to her legs and having more difficulty getting around and taking care of herself. She tends to walk with a walker or a cane prior to the events that brought her into the hospital this time. She was admitted to the hospital on 2/9/2022. She has a history of multiple falls. She was standing up, tying her bathrobe when she lost her balance and fell backwards, onto the

floor, onto her back. She called out her husband and had her brought to the Emergency Room. A CT of the spine revealed a superior endplate compression fracture of L1, likely to be acute. The patient was admitted, seen by an old family friend and [Dr N-]; also foL1 owed by [Dr R-], hospitalist; and [Dr V-], surgery. [Dr V-] ended up taking the patient for kyphoplasty of L1, which was done on 2/15th per [Dr V-]. The patient is now more stable postoperatively and needs comprehensive rehabilitation to help her regain her mobility, strength and independence.

**PAST MEDICAL HISTORY:** Notable for hypertension, severe peripheral neuropathy, osteoarthritis, hyperlipidemia, coronary artery disease, status post myocardial infarction, cholecystectomy, hysterectomy, bladder repair in the past, cataracts.

**ALLERGIES:** PENICILLIN AND SULFA.

She also has now had constipation. She was not eating very well during the first part of her stay. She is taking pain medicine and not being very active, so she reports constipation. Her husband reports that she is having some urinary incontinence. She apparently had a workup for urinary incontinence a few years ago and has been more stable with it recently but is now having some difficulty. She will call for help and by the time the help arrives to help her get to the toilet, she will stand up and then lose control of her bladder. It would probably be appropriate to put her on a bladder program right off and have her empty her bladder regularly every 2 hours preemptively.

**DIET:** Cardiac.

**FAMILY HISTORY:** Noncontributory.

**SOCIAL HISTORY:** The patient previously was independent prior to coming into the hospital. She uses a cane or a walker for ambulation and she does not drive. The patient does live as noted previously with her spouse in a 2-storey home. all of her needs are downstairs. There is only step at the entrance.

**PRESENT FUNCTIONAL STATUS IN HER THERAPIES:** She is moderate assistance with bed mobility, supine to sit, sit to stand and bed to chair transfers. She has ambulated as far as 5 feet with a rolling walker with minimal assistance with a rolling walker and short steps in a flexed posture. In occupational therapies, moderate assistance with upper body bathing and dressing, independent with lower body bathing and dressing. There are no speech therapy issues at this time.

Extensive workup includes the following : CT of the head was done on 2/9 showing no acute abnormality, chronic small -vessel ischemic or hypertensive changes and atrophy is noted. A CT of the lumbar spine indeed shows a superior endplate compression fracture of L1 likely to be acute. No other fractures noted. Pelvic x-ray on 2/9th shows no pelvic fracture identified. There is chronic narrowing of the left hip and to a lesser extent, the right hip. X-ray of the lumbar spine shows loss of height involving the superior endplate of L1 vertebral body, corresponding to compression fracture, no other interval change.

**NOTABLE LABORATORY DATA:** Include the following : CBC on the day of this dictation shows a white count of 7.50, hematocrit is 38.0 and these results were stable and consistent with the previous CBC results.

A comprehensive metabolic panel is notable for a potassium today of 3.2, BUN of 23, otherwise benign. Troponin was 0.012 on 2/9th.

**REVIEW OF SYSTEMS:** She notes that her appetite has been somewhat poor. She was not eating very well, maybe a little bit better now. No shortness of breath. No pain in her chest. She does have pain in her back, which as we were talking was a 10 on a scale of 0-10. She is noted to be constipated with no diarrhea. She also notes that she has incontinence of bladder. Other than that, her review of systems is essentially negative and benign.

**MEDICATIONS ON ADMISSION:** Include the following: Amitriptyline 50 mg p.o. at bedtime, Lipitor 20 mg p.o. daily, calcium with vitamin D 1 p.o. b.i.d. with meals, Plavix 75 mg p.o. daily, cyclobenzaprine 10 mg p.o. t.i.d. p.r.n. muscle spasms, folic acid 0.4 mg p.o. daily, Lasix 40 mg p.o. daily, heparin 5000 units subcutaneously q.12 hours,

Lidoderm patch, losartan 50 mg p.o. daily, Toprol-XL 25 mg p.o. b.i.d.; multivitamin 1 p.o. daily, 5-10 mg p.o. q.4 hours p.r.n. pain, Protonix 40 mg p.o. b.i.d., MiraLax p.r.n. for constipation. I have added potassium chloride 20 mEq p.o. daily and Carafate 1G p.o. q.i.d.

### PHYSICAL EXAMINATION:

**GENERAL:** This is a well-developed, well-nourished, somewhat obese white female who is alert and oriented x 3. she is in acute discomfort, occasionally having muscle spasms in her back that affect her comfort in sitting still. She has no other specific issues except as noted above on request.

**NEUROLOGIC~** Her cranial nerves are noted to be intact.

**NECK~** Supple.

**LUNGS:** Clear.

**HEART:** Regular rate and rhythm.

**ABDOMEN:** Nontender, nondistended with normal bowel sounds.

**EXTREMITIES:** Both upper extremities show good strength and range of motion throughout. Both lower extremities have antigravity minus strength throughout. There is dorsiflexion present, but it is quite weak, Her grips are weak, but are fairly benign as well.

### DIAGNOSES:

1. L1 compression fracture, status post kyphoplasty.
2. Known history of polyneuropathy, idiopathic type.
3. Muscle spasms secondary to L1 compression fracture.
4. Hypertension.
5. Polyneuropathy
6. Hyperlipidemia,
7. Heparin for venous thromboembolism prophylaxis.
8. Pantoprazole for gastroesophageal prophylaxis.
8. Hypokalemia. We will start supplemental potassium.

**POST-ADMISSION PHYSICIAN EVALUATION:** I saw [Patient] today in her room. I have admitted her for rehabilitation. I have reviewed her preadmission evaluation. I have reviewed her chart from [Hospital B], which is where she came from. I have also interviewed her and examined her. Based upon all of the above information, I attest to the fact that her post-admission physician evaluation is an accurate representation of her present clinical status. Also, I believe she can tolerate 3 hours of therapies a day for an average of 5 days a week or more.

She has multiple medical issues that will need close monitoring to be safe, especially issues that relate to further falls with her weakness due to her polyneuropathy.

We will need to monitor her potassium regularly. She is started on oral potassium and that will need to be monitored and checked periodically. I am going to start her on muscle spasm medication to try to help muscle spasms in her back. She is having a great deal of pain and a lot of it is muscular. She remains on heparin for venous thromboembolism prophylaxis and remains on pantoprazole for gastroesophageal prophylaxis. She remains on MiraLax for her constipation as well .

I believe she can tolerate 3 hours of therapies a day for an average of 5 days a week or more. We are going to need to be more concerned about her pain control. She has been on Lortab 10/325 one q.4 hours. I am going to change her oxycodone at a somewhat higher potential dose p.r.n. for pain, which should help her control her pain better. I have discussed this with the patient, who understands. Also, I am going to put her on a bladder program where she will be put on the toilet every 2 hours when awake and all owing her to void preemptively, so we can cut down on her incontinence and work on her being more mobile and independent.

Her program will include physical therapy will see her 5-6 days a week, 1-2 sessions a day, working on strength, endurance and mobility and occupational therapy will also see her 5-6 days a week, 1-2 sessions a day, working on activities of daily living, independence and self-care.

I believe she can tolerate therapies, though they may be slow to begin with in particular because of the pain, but I believe she has fair to good prognosis to be able to improve in PT and OT to go to the point where she can go home with her husband, which is what her plan is to do after discharge. I would estimate her length of stay to be approximately 2 weeks.

## PHYSICAL MEDICINE AND REHABILITATION FACE-TO-FACE NOTE

**SUBJECTIVE:** I saw [Patient] today in her room. She reports that she did not sleep well last night, but she seems to have a little bit more energy today. I talked to both the son and the husband who thinks that she seems to be doing a little bit better today. She has no new complaints, specifically today.

### OBJECTIVE:

**GENERAL:** She is alert, conversant and appropriate.

**VITAL SIGNS:** She is afebrile blood pressure 117/68, pulse 66 and respirations 18.

**LABORATORY DATA:** Today, the white count is 7.10. The hematocrit is 32.6. The last hematocrit was 37.1 on the 19th. I will recheck tomorrow and Check stools for occult blood. Urinalysis on 2/20 shows 182 white cells or more with 1 red cell and urine culture is presently growing out greater than 100,000 lactose fermenting gram-negative bacilli, culture and sensitivity pending. A basic metabolic panel today shows a BUN of 23, which is actually improved over previous levels.

**FUNCTIONAL STATUS:** She continues to participate in her therapies. She is ambulating 22 feet with a rolling walker with minimal assistance at this time.

### ASSESSMENT/PLAN:

1. L1 compression fracture, status post kyphoplasty. Physical and occupational therapies continue. The first team conference is tomorrow. She is having a good deal of pain, but she seems to be doing somewhat better.
2. Drowsiness or lethargy. Note that she may have a urinary tract infection and she had some drop in her hematocrit. We will explore these issues further. Her pain medicines are now stable, and she seems to be more stable.
3. Known history of polyneuropathy idiopathic type. Physical and occupational therapies continue.
4. Muscle spasms secondary to L1 compression fracture, on cyclobenzaprine p.r.n.
5. Hypertension. Blood pressures are good.
6. Hyperlipidemia, stable.
7. Heparin for venous thromboembolism prophylaxis, stable.
8. Pantoprazole for gastroesophageal prophylaxis, stable.
9. Hypokalemia. improved and stable.
10. A 5 point drop in hematocrit in 3 days. We will recheck CBC tomorrow and we will check stools for occult blood.
11. possible urinary tract infection with leukocytosis in the urine and greater than 100,000 lactose fermenting gram-negative bacilli. Await culture and sensitivity.

**PHYSICAL MEDICINE AND REHABILITATION FACE-TO-FACE NOTE****DATE OF SERVICE:** 02/24/2022

**SUBJECTIVE:** I saw [Patient] today in the physical therapy gym accompanied by her husband. She has no new complaints. She does report continued arthritic pain, particularly in her left shoulder last night. She was on Daypro for that at home, apparently had some GI issues at one point, stopped having the GI issues and was started back on that by her primary doctor and she is requesting she be put back on it. I believe she can tolerate it and I believe that will help her.

**OBJECTIVE:**

**GENERAL:** She is alert, conversant and appropriate.

**VITAL SIGNS:** She is afebrile, blood pressure 128/57, pulse 65 and respirations 18.

**LABORATORY DATA:** stool was negative for occult blood on 2/23 and the white count was 35.1

**FUNCTIONAL STATUS:** [Patient] continues to participate in her therapies and seems to be having more energy today. She has ambulated 40 feet with a rolling walker with minimal assistance of 2.

**ASSESSMENT/PLAN:**

1. L1 compression fracture, status post kyphoplasty. Physical and occupational therapies continue. Discharge is targeted for 3/4 with outpatient physical and occupational therapies, rolling walker, bedside commode and wheelchair.
2. Drowsiness or lethargy, improved, probably secondary to urinary tract infection.
- ... 3. Known history of polyneuropathy, idiopathic type. Physical and occupational therapies continue.
4. Muscle spasms secondary to L1 compression fracture on cyclobenzaprine p.r.n., stable.
5. Hypertension. Blood pressures are good.
6. Hyperlipidemia, stable.
7. Heparin for venous thromboembolism prophylaxis, stable.
8. Pantoprazole for gastroesophageal prophylaxis, stable.
9. Hypokalemia, improved and stable.
10. Hematocrit improved today over recent levels, stable.
11. Urinary tract infection with Escherichia coli, on Levaquin for treatment

**Discharge Summary: 3/04/22****Date of admission: 2/16/22**

- L1 compression fracture, status post kyphoplasty
- Drowsiness or lethargy
- History of polyneuropathy, idiopathic type
- Muscle spasms secondary to L1 compression fracture
- Hypertension
- Hyperlipidemia
- Heparin for venous thromboembolism prophylaxis
- Pantoprazole
- Hypokalemia
- Hematocrit
- UTI, fully treated with Levaquin

Discharge to home with home health services.

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**IGC:****ETIOLOGIC:****TIER:****60% QUALIFIER:****COMMENTS:**

# Case Study 9 – Breakout

## IRF-PAI

- IGC:
- Etiologic Diagnosis(es):
- Tier:
- Age:
- Motor Score:
- CMG:
- 60%, WHY:

## UB04

- Principal:
- CC/MCC:
- DRG:

## AQ-IQ IRF PRO LAB Case 9, Session 6

### Coder Summary:

#### Admitting Diagnosis:

G45.9 Transient cerebral ischemic attack, unspecified

#### Principal Diagnosis:

G45.9 Transient cerebral ischemic attack, unspecified

#### Secondary Diagnoses:

I10 Essential (primary) hypertension

I69.354 Hemiplegia following cerebral infarction affecting left nondominant side (CC)

R00.1 Bradycardia, unspecified

I82.532 Chronic embolism and thrombosis of left popliteal vein (CC)

Z79.899 Other long term (current) drug therapy

Z79.01 Long term (current) use of anticoagulants

E78.5 Hyperlipidemia, unspecified

K21.9 Gastro-esophageal reflux disease without esophagitis

H40.9 Unspecified glaucoma

I48.91 Unspecified atrial fibrillation

K57.90 Diverticulosis of intestine, part unspecified, without perforation or abscess without bleed

R26.9 Unspecified abnormalities of gait and mobility

R25.2 Cramp and spasm

I69.322 Dysarthria following cerebral infarction

Z91.81 History of falling

R29.6 Repeated falls

R26.0 Ataxic gait

R60.9 Edema, unspecified

R45.87 Impulsiveness

### Pre-Admission Screening

**Etiology:** DVT of popliteal vein, uncontrolled blood pressure

**Date of screening:** 4/13/22

73 year old woman referred for evaluation of possible stroke. Patient has a history of stroke on December 31<sup>st</sup> which left her with residual left hemiparesis and dysarthria. She has been receiving outpatient rehab and yesterday at PT appointment when she seemed to be weaker than usual and had decreased coordination, patient's blood pressure was reportedly 216/80. Went home after blood pressure lowered, but then had difficulty later and family returned her to the ER. Blood pressure then noted to be 209/93. A CT scan of her brain was performed which showed encephalomalacia in the left basal ganglia as well as hypodensity in right corona radiata of uncertain age. No hemorrhage or edema noted. Ultrasound of her left lower extremity showed a deep vein thrombosis.

**Comorbidities:** Hypertension, hyperlipidemia, GERD, glaucoma; hx of aFib and diverticulosis

**ADMISSION MOTOR SCORE:** 31

**HISTORY AND PHYSICAL EXAM****DATE:** 04/16/2022

Post-admission evaluation, preadmission screen has been reviewed.

compared to preadmission screen, there are no identifying relevant changes in functional status, discharge plan or living conditions that have occurred. The patient is expected to benefit and participate in center for rehab at this time and expected to benefit and participate in 3 hours of therapy a day 5-7 days a week.

**HISTORY OF PRESENT ILLNESS:** The patient is a very pleasant 72-year-old female who was primarily admitted to the acute rehabilitation unit after CVA with left hemiparesis. She was doing fairly well at home in outpatient rehabilitation when blood pressure began to elevate. She also felt like she had some increasing left-sided weakness. She was brought to the emergency room. Initial stroke was ruled out. However, she did need multiple medication adjustments. She was seen by cardiology, also found to have DVT of left lower extremity. She did also suffer a fairly significant decline in function as she is transferred here for further care at acute inpatient rehabilitation.

**PAST MEDICAL HISTORY:** Includes hypertension, hyperlipidemia, GERD, glaucoma, old CVA, left-sided weakness, atrial fibrillation, diverticulosis.

**SOCIAL HISTORY:** Lives with daughter single family home, 4 steps to enter. No tobacco, ETOH history.

**PRIOR FUNCTIONAL HISTORY:** The patient was mod I for ambulation, contact guard assist for ADLs, current min assist for transfers and bed mobility.

**ALLERGIES:** SHE HAS ALLERGIES TO CODEINE, IBUPROFEN, PENICILLIN, ASPIRIN.

**MEDICATIONS:** Include metoprolol, Xalatan, Lipitor, Protonix, Eliquis, amlodipine, Norvasc.

**CURRENT LABORATORY DATA:** Show a hemoglobin of 12.0, hematocrit 35.7.

**PHYSICAL EXAMINATION:** The patient is alert. She is oriented. Her heart is regular rhythm. Her lungs are clear to auscultation bilaterally. Abdomen is soft, nontender, bowel sounds are present. Extremities show no clubbing, cyanosis or edema. Her deep tendon reflexes are intact. Her left upper extremity shows 1-2 strength throughout. Her left lower extremity 3-3+ strength throughout. Her right-sided upper and lower extremity shows normal strength. Skin is intact.

**IMPRESSION:**

1. Increased left-sided weakness secondary to hypertensive emergency, now with better control of blood pressure.

2. Abnormality of gait.
3. Spasticity.
4. Lower extremity deep venous thrombosis.
5. Glaucoma.
6. Hyperlipidemia.

**PLAN:** The patient has suffered a decline of function. She has multiple medical comorbidities that need to be managed. She is an excellent candidate for acute inpatient rehabilitation where she will get physical therapy for general strengthening, range of motion, gait training, occupational therapy for ADLs, transfers, upper extremity strengthening. Goals will be for modified independent. Estimated length of stay is 2 weeks. Prognosis is good. Eventually, we will transition her to a day rehabilitation. Barriers to discharge include lower extremity DVT, poor balance, history of multiple strokes. The risks include skin breakdown, pulmonary embolism and further cerebral event. The patient will have weekly team conference. We will ask primary care physician to follow as well.

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#### **PROGRESS NOTE 04/18/22**

**SUBJECTIVE:** The patient had issues with her blood pressure over the weekend. Systolic pressure still bumping into the 190s and 170s this morning and is at 126 systolic. She denies any headaches or increase in her paresthesias. Norvasc was increased as per cardiology.

**PHYSICAL EXAMINATION:** On examination, she is alert and oriented x3. Temperature 98.3, blood pressure 126/62, pulse 60 with a respiratory rate 18. CVS is S1, S2, regular rate and rhythm with no ankle edema in bilateral extremities. Abdomen is soft, nontender, nondistended. Lungs are clear to auscultation. Functionally, she is at min assist for transfers, min assist for lower extremity dressing.

**IMPRESSION:** Activities of daily living gait dysfunction with exacerbation of left-sided weakness due to hypertensive emergency, gait ataxia, falls, spasticity, glaucoma, hypertension. Impulsivity.

**PLAN:** Continue with inpatient PT, OT, speech with 24-hour rehab nursing. Norvasc is being increased. We will continue to monitor blood pressures, especially with activities today. We will use modalities to help with tone management, range of motion exercises. We can consider Botox if these were unsuccessful.

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**Progress Note: 4/22/22**

The patient's blood pressure was somewhat elevated overnight, going into the 160s; however, this morning it is in the 120s. She denies any headaches or paresthesias. She denies any nausea or vomiting. She is noted to have impaired balance with narrow space of standing requiring verbal cues, especially for ADLs. She denies any nausea, vomiting or headaches.

**PHYSICAL EXAMINATION:** Temperature 97.5, blood pressure 126/59, pulse 57 with respiratory rate 18. Cardiovascular system: S1 and S2. Again there was no ankle edema in bilateral extremities. Abdomen: Soft, nontender, and nondistended. Lungs are clear to auscultation.

**IMPRESSION:** Activities of daily living gait dysfunction secondary to left-sided hemiparesis, status post cerebrovascular accident; dysarthria; gait ataxia; hypertension.

**PLAN:** Continue with inpatient PT and OT, speech with 24-hour rehab nursing. Norvasc was increased as per cardiology and it seems to be working. We will continue to monitor. She needs to be using assistive device at all times. As per team conference today, they had still recommended that she have 24-hour supervision at home. Discharge planning is for 04/29/2022. Please see attached note in the chart.

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**Progress Note: 4/25/22**

**SUBJECTIVE:** The patient's blood pressure has now been stabilizing. She denies any nausea, vomiting, or headaches. Denies any double vision. Tone is controlled in the right upper extremity without increasing pain. She can have full range of motion. She is contact guard assist for bed mobility, contact guard assist for transfers, still needing some cues for safety, but \_\_\_\_\_ verbalize proper sequencing.

**PHYSICAL EXAMINATION:** Vital Signs: Temperature 97.2, blood pressure 128/69, and pulse 76 with a respiratory rate of 19. Cardiovascular: S1, S2 regular rate and rhythm with no ankle edema in bilateral extremities. Abdomen: Soft, nontender, and nondistended. Lungs: Clear to auscultation.

**IMPRESSION:** Activities of daily living gait dysfunction secondary to right-sided hemiparesis due to recent history of cerebrovascular accident, hypertensive emergency, increased tone which is stabilizing, and falls.

**PLAN:** Continue with inpatient PT, OT, and speech. Blood pressure is being maintained with increased dose of metoprolol, we will continue amlodipine. Heart rate now in the 70s instead of in the 50s. We will continue with the decreased dose of Toprol.

**Discharge Summary:** 4/29/22

**Date of admission:** 4/15/22

**Reason for admission:** Hypertensive urgency, exacerbation of left-sided hemiparesis, spasticity, dysarthria, dysphagia, gait ataxia

Discharge to home with home health services.

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**IGC:**

**ETIOLOGIC:**

**TIER:**

**60% QUALIFIER:**

**COMMENTS:**