**Patient**: Julia Wilson  
**MRN**: 715943  
**DOB**: 1982-09-13 (42 years)  
**Admission**: 2025-03-10 | **Discharge**: 2025-03-22  
**Physicians**: Dr. A. Kim (Hematology/Oncology - BMT), Dr. M. Patel (GI), Dr. T. Nguyen (ID)

## **DISCHARGE DIAGNOSIS**

Acute Myeloid Leukemia with Grade III Acute Colonic Graft-versus-Host Disease

## **DETAILED DIAGNOSIS**

* **Primary**: Acute Myeloid Leukemia (AML) with FLT3-ITD and NPM1 Mutations
* **Diagnosed**: 2024-05-20
* **ELN 2022 Risk Classification**: Intermediate risk (FLT3-ITD)
* **Bone marrow**:
  + Blast percentage: 72%
  + Flow cytometry: Blasts positive for CD34, CD33, CD13, HLA-DR, CD117, myeloperoxidase
  + Cytogenetics: Normal karyotype (46,XX[20])
  + Molecular: FLT3-ITD positive (allelic ratio 0.65), NPM1 mutation positive, CEBPA wild-type

## **CURRENT TREATMENT**

**GVHD Presentation**:

* Onset: Day +90 post-transplant
* Symptoms: Profuse watery diarrhea (>1500 mL/day), abdominal pain, nausea
* Grading: Overall grade III acute GVHD (stage 3 GI involvement)
* Colonoscopy findings (2025-03-12): Diffuse mucosal erythema, erosions, and ulcerations in sigmoid and descending colon
* Biopsy: Apoptotic crypt destruction, lymphocytic infiltration consistent with acute GVHD
* Stool studies: Negative for C. difficile, CMV, other infectious pathogens

**GVHD Management**:

* Systemic corticosteroids: Methylprednisolone 2 mg/kg/day IV, started on 2025-03-11, tapered to oral prednisolone before discharge
* Calcineurin inhibitor: Tacrolimus 1 mg PO BID, titrated to maintain trough level 8-12 ng/mL
* Topical corticosteroids: Budesonide 9 mg PO daily
* Anti-diarrheal agents: Loperamide 2 mg PO after each loose stool (max 16 mg/day)
* Nutritional support: Parenteral nutrition during hospitalization, transitioning to oral diet prior to discharge

**Supportive Care**:

* Fluid and electrolyte replacement as needed
* Pain management: Hydromorphone IV during hospitalization, transitioned to oxycodone 5 mg PO q6h PRN

## **PREVIOUS TREATMENT HISTORY**

**AML Induction** (2024-05 to 2024-06):

* Regimen: "7+3" + midostaurin
* Response: Morphologic complete remission (CR)

**AML Consolidation** (2024-07 to 2024-09):

* Two cycles of high-dose cytarabine (HiDAC) 3 g/m² q12h days 1, 3, 5 + midostaurin 50 mg PO BID

**Bone Marrow Transplant** (2024-12):

* Conditioning: Busulfan (target AUC 4800 μmol\*min/L) days -7 to -4, Cyclophosphamide 60 mg/kg days -3 to -2
* PBSCT from MUD 10/10 on 2024-12-05 (d0)
* GVHD prophylaxis: Tacrolimus (started day -1) and methotrexate (15 mg/m² day +1, 10 mg/m² days +3, +6, +11)
* Complications: Mucositis (grade 3), neutropenic fever, mild sinusoidal obstruction syndrome
* Engraftment: Neutrophil day +14, platelet day +17
* Chimerism: 98% donor (day +30), 99% donor (day +60)

**Previous GVHD Episodes**:

* Skin GVHD (day +20): Grade I, resolved with topical steroids

## **COMORBIDITIES**

* Hypothyroidism (diagnosed 2020, stable on levothyroxine)
* Hypertension (diagnosed 2022, controlled)
* Anxiety disorder (exacerbated after cancer diagnosis)
* Chronic kidney disease stage G2 (eGFR 65 mL/min/1.73m²)
* Osteopenia (related to corticosteroids and premature menopause)
* Iron overload (ferritin 1850 ng/mL, multiple transfusions)

**Other Active Issues**:

* CMV reactivation (day +45): Treated with valganciclovir, currently undetectable
* Chronic kidney disease stage G2 (baseline Cr 1.2 mg/dL, tacrolimus-associated)
* Peripheral neuropathy (residual from induction chemotherapy)

## **HOSPITAL COURSE**

42-year-old female (day +95 post-transplant) presented with 5-day history of profuse watery diarrhea (>10 stools/day, 1500-2000 mL), diffuse abdominal pain, nausea, and fatigue.

Infectious workup (C. diff, bacterial culture, ova/parasites, viral studies including CMV) was negative. Abdominal CT showed diffuse colonic wall thickening with inflammation, prominent in descending/sigmoid colon.

Colonoscopy (2025-03-12) revealed diffuse mucosal erythema, erosions, and ulcerations. Biopsies confirmed acute GVHD. Diagnosed with stage 3 colonic GVHD (overall grade III).

Treatment included methylprednisolone 2 mg/kg/day IV, maintenance of therapeutic tacrolimus levels, and oral budesonide. Initially NPO with parenteral nutrition, fluid repletion, and electrolyte correction.

Patient showed excellent response with substantial reduction in stool volume/frequency. By day 8, diarrhea improved to 2-3 loose stools daily and abdominal pain resolved. Successfully transitioned to low-residue diet and from IV to oral steroids.

Bone marrow evaluation (day +100) performed on 2025-03-20. Morphology returned aspicular; molecular results pending for review on 2025-03-24. Peripheral chimerism came back with 88%.

## **DISCHARGE MEDICATIONS**

* Prednisolone 60 mg PO daily with taper plan:
  + 60 mg daily × 7 days
  + 50 mg daily × 7 days
  + 40 mg daily × 7 days
  + Then decrease by 5 mg weekly until 10 mg daily
  + Further taper based on clinical response
* Tacrolimus 1 mg PO BID (target trough 8-12 ng/mL)
* Budesonide 9 mg PO daily
* Loperamide 2 mg PO after each loose stool (max 16 mg/day)
* Pantoprazole 40 mg PO daily
* Valgancyclovir 900 mg PO daily
* Posaconazole 300 mg PO daily
* Atovaquone 1500 mg PO daily
* Levothyroxine 112 mcg PO daily
* Amlodipine 5 mg PO daily
* Calcium 600 mg/Vitamin D 800 IU PO BID
* Magnesium oxide 400 mg PO daily
* Oxycodone 5 mg PO q6h PRN pain
* Ondansetron 8 mg PO q8h PRN nausea
* Lorazepam 0.5 mg PO daily PRN anxiety

## **FOLLOW-UP PLAN**

**Bone Marrow Transplant**:

* Dr. A. Kim on 2025-03-24 to review molecular genetics and chimerism results
* Next appointments: weekly for first 2 weeks, then biweekly if stable
* GVHD assessment at each visit
* Prednisolone taper monitoring based on clinical response
* Labs: CBC, CMP, magnesium, tacrolimus level weekly

**Infectious Disease**:

* Dr. T. Nguyen in 3 weeks (2025-04-12)
* Monitoring for opportunistic infections during triple immunosuppression
* CMV PCR monitoring weekly

**Nutrition Support**:

* Nutritionist in 1 week (2025-03-29)
* Low-residue diet instructions provided
* Caloric intake: 2000 kcal/day
* Protein intake: 1.5 g/kg/day
* Fluid intake: 3 L/day minimum

**Vaccination Plan**:

* All vaccinations on hold until immunosuppression reduced
* Reimmunization schedule to begin ~6 months post-transplant

**Patient Education**:

* GVHD symptoms requiring immediate attention
* Infection prevention strategies
* Dietary restrictions and recommendations
* Hydration requirements

## **KEY LAB VALUES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Admission** | **Discharge** | **Reference** |
| WBC | 5.2 | 6.8 | 4.0-11.0 ×10^9/L |
| ANC | 3.8 | 5.2 | 1.8-7.5 ×10^9/L |
| Lymphocytes | 0.9 | 1.1 | 1.0-4.5 ×10^9/L |
| Hemoglobin | 10.2 | 9.8 | 12.0-16.0 g/dL |
| Platelets | 145 | 168 | 150-400 ×10^9/L |
| Sodium | 134 | 137 | 135-145 mmol/L |
| Potassium | 3.2 | 3.9 | 3.5-5.0 mmol/L |
| Bicarbonate | 18 | 24 | 22-29 mmol/L |
| BUN | 28 | 18 | 7-20 mg/dL |
| Creatinine | 1.3 | 1.2 | 0.5-1.1 mg/dL |
| Albumin | 3.1 | 3.3 | 3.5-5.0 g/dL |
| Tacrolimus | 9.5 | 10.2 | 8.0-12.0 ng/mL |
| CMV PCR | <137 | <137 | <137 copies/mL |
| CRP | 4.2 | 1.8 | <0.5 mg/dL |

**Electronically Signed**:  
Dr. A. Kim (Hematology/Oncology - BMT)  
Dr. M. Patel (Gastroenterology)  
Date: 2025-03-22