**Patient**: Alexander Thompson (DOB 1971-02-01)  
**MRN**: 854721  
**Admission**: 2025-03-18 | **Discharge**: 2025-03-24  
**Physicians**: Dr. M. Jacobs (Hematology/Oncology), Dr. J. Rodriguez (Cardiology), Dr. T. Wilson (Infectious Disease)

**Discharge diagnosis: newly diagnosed CML**

**1. Oncological Diagnosis**

* **Primary**: Chronic Myelogenous Leukemia (CML), diagnosed March 2025
* **Histology**: Hypercellular marrow (95%) with marked myeloid hyperplasia. M:E ratio 20:1. Blast percentage 3%. Reticulin fibrosis grade 1/4.
* **Immunohistochemistry/Flow**: CD34+ blasts <5%, myeloid predominance, blast percentage 2.8%
* **Molecular Studies**:
  + BCR-ABL1 fusion transcript positive
  + BCR-ABL1/ABL1 ratio (IS) 78.6%
  + Transcript type: e14a2 (b3a2)
  + Cytogenetics: 46,XY,t(9;22)(q34;q11.2) in 20/20 metaphases
  + FISH: BCR-ABL1 fusion positive in 95% of nuclei
  + NGS: Negative for additional mutations
* **Risk Stratification**:
  + Sokal Score: 0.9 (Intermediate risk)
  + EUTOS Score: 69 (Low risk)
  + ELTS Score: 1.39 (low risk)
* **Key Labs at Diagnosis**:
  + WBC: 186.4 × 10^9/L
  + Hemoglobin: 11.2 g/dL
  + Platelets: 480 × 10^9/L
  + Differential: Neutrophils 58%, Myelocytes 12%, Metamyelocytes 8%, Blasts 1%, Basophils 7%
  + LDH: 780 U/L, Uric acid: 8.2 mg/dL
* **Imaging**: Splenomegaly (17 cm), normal liver, no lymphadenopathy

**2. Current Treatment**

* **TKI Therapy**: Dasatinib (Sprycel®) 100 mg PO daily, initiated March 21, 2025
* **Cytoreduction**: Hydroxyurea 2000 mg PO daily x 3 days, then 1000 mg x 1 day, discontinued after WBC decreased to 24.6 × 10^9/L
* **Tumor Lysis Prevention**: Allopurinol 300 mg PO daily, IV hydration
* **Symptom Management**: Acetaminophen PRN for pain/fever

**3. Comorbidities**

* Moderate persistent asthma (controlled)
* Essential hypertension (controlled)
* Mild depression (on SSRI)
* History of nephrolithiasis (2018)
* Allergies: Penicillin (urticaria), Iodinated contrast (rash)

**4. Hospital Course**

Patient presented with fatigue, early satiety, left upper quadrant discomfort, night sweats, and markedly elevated WBC count. Diagnosed with chronic phase CML. Initiated cytoreduction, TLS prophylaxis, and dasatinib. WBC decreased appropriately to 24.6 × 10^9/L. Splenomegaly improved to 4 cm below costal margin with symptom improvement. Cardiac and pulmonary evaluations normal prior to TKI initiation.

**5. Discharge Medications**

**New Medications**:

* Dasatinib 100 mg PO daily
* Famotidine 20 mg PO daily (2h after or 10h before Dasatinib)
* Allopurinol 300 mg PO daily (continue for 2 weeks)
* Acetaminophen 650 mg PO Q6H PRN
* Loperamide 2 mg PO PRN for diarrhea

**Chronic Medications**:

* Lisinopril 10 mg PO daily
* Fluticasone/salmeterol 250/50 mcg inhaler, 1 puff BID
* Escitalopram 10 mg PO daily
* Loratadine 10 mg PO daily PRN
* Albuterol inhaler PRN

**6. Follow-up**

* Dr. M. Jacobs in 1 week (March 31, 2025)
* CBC with differential twice weekly for 2 weeks, then weekly until stable
* CMP weekly for 1 month
* BCR-ABL1 PCR at 3 months (target: ≤10% IS)
* Subsequent monitoring every 3 months for first year

**Key Recommendations**

* Report respiratory symptoms, chest pain, or bleeding immediately
* Monitor for fluid retention
* Avoid PPIs, take H2RA only in specified time window
* Avoid strong CYP3A4 inhibitors/inducers, grapefruit juice, St. John's wort
* Avoid live vaccines
* Use effective contraception
* Strict medication adherence

**7. Lab Values (Admission → Discharge)**

* WBC: 186.4 → 24.6 × 10^9/L
* Hemoglobin: 11.2 → 11.5 g/dL
* Platelets: 480 → 420 × 10^9/L
* Neutrophils: 58 → 62%
* Myelocytes: 12 → 5%
* Blasts: 1 → 0%
* LDH: 780 → 520 U/L
* Uric Acid: 8.2 → 5.6 mg/dL

**Electronically Signed By**:  
Dr. M. Jacobs (Hematology/Oncology) - 2025-03-24 15:45  
Dr. J. Rodriguez (Cardiology) - 2025-03-23 10:30