Clinical Report

Patient Information

- **Name:** Benjamin Carter
- **Date of Birth:** 05/10/1988
- **Age:** 37
- **Gender:** Male
- **Contact Information:** (555) 345-6789, ben.carter@email.com
- **Address:** 123 Pine Street, Anytown, USA

Referring Physician

- Dr. Emily White, MD
- Ophthalmologist
- Anytown Eye Care Center

Medical Institution

- Anytown Neurology Institute
- **Report Date:** 07/18/2025

Clinical History and Background

Benjamin Carter is a 37-year-old architect who was urgently referred to our neurology clinic by his ophthalmologist, Dr. Emily White, following an episode of acute vision loss in his right eye. This event, diagnosed as optic neuritis, prompted concern for a central nervous system demyelinating disorder. Mr. Carter reports being in excellent health prior to this event. However, on further questioning, he recalls several transient neurological episodes over the past few years that he had previously dismissed. About two years ago, he experienced a two-week period of numbness and tingling in his left leg, which resolved spontaneously. Last year, he had a brief episode of intense vertigo that lasted for several days. His family history is negative for neurological or autoimmune diseases. He is a non-smoker.

Current Symptoms & Patient-Reported Outcomes (PROs)

- **Vision Loss (Right Eye):**
    - **Patient's Description:** "It started as a blurry spot in the center of my vision, and over a couple of days, it got much worse. Colors look faded and washed out, and it hurts when I move my eye."
    - **Severity:** Significant vision reduction in the right eye. He rates the associated pain a 5/10.
    - **Duration:** Onset one week ago.

    - **Clinical Note:** This classic presentation of painful, subacute monocular vision loss is highly characteristic of optic neuritis, a common initial presentation of Multiple Sclerosis (MS).
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- **Fatigue:**
    - **Patient's Description:** "A level of tiredness that's completely new to me. It's not just sleepy; it's a total wipeout that hits me in the afternoon."
    - **Severity:** Severe, impacting his ability to concentrate on detailed architectural plans.
    - **Duration:** Progressively worsening over the past month.
    - **Clinical Note:** "Lassitude," or MS-related fatigue, is one of the most common and disabling symptoms of the disease.
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- **Numbness and Tingling (Left Arm):**
    - **Patient's Description:** "My left hand and forearm feel like they're asleep, but it's been this way for a few days. It feels like pins and needles."
    - **Severity:** Moderate, causing some difficulty with fine motor tasks like writing and using a mouse.
    - **Duration:** Onset three days ago.
    - **Clinical Note:** This sensory disturbance represents a new neurological event, separate in time and location from his optic neuritis and previous leg numbness.
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Clinical Findings

- **Vital Signs:**
    - **Blood Pressure:** 120/80 mmHg
    - **Heart Rate:** 70 bpm
    - **Respiratory Rate:** 14 breaths/min
    - **Temperature:** 98.6°F (37.0°C)
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- **Physical Examination:**
    - **Neurological:**
        - **Cranial Nerves:** Right afferent pupillary defect (Marcus Gunn pupil) noted. Visual acuity is 20/200 in the right eye and 20/20 in the left. Color vision (Ishihara plates) is markedly reduced in the right eye. Funduscopic exam shows mild optic disc swelling on the right.
        - **Motor:** Full strength (5/5) in all extremities.
        - **Sensory:** Decreased sensation to light touch and pinprick in the left upper extremity in a C6-C8 dermatomal distribution.
        - **Reflexes:** Brisk reflexes (3+) in the left arm and leg. Positive Babinski sign on the left.
        - **Coordination:** No ataxia or dysmetria.
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- **Imaging:**
    - **MRI of the Brain and Orbits with and without contrast:** Revealed enhancement of the right optic nerve, consistent with acute optic neuritis. Additionally, there are multiple (more than 10) ovoid-shaped T2/FLAIR hyperintense lesions in classic MS locations, including periventricular, juxtacortical, and infratentorial areas. Several lesions show active gadolinium enhancement, indicating areas of active inflammation.
    - **MRI of the Cervical Spine with and without contrast:** Showed two small, non-enhancing T2 hyperintense lesions in the dorsal columns at the C3 and C5 levels.
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- **Other Diagnostics:**
    - **Lumbar Puncture and Cerebrospinal Fluid (CSF) Analysis:** Showed the presence of oligoclonal bands in the CSF that were not present in the serum, indicating intrathecal immunoglobulin synthesis.
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Diagnosis

Mr. Carter's presentation meets the 2017 McDonald Criteria for a diagnosis of Relapsing-Remitting Multiple Sclerosis (RRMS). He has demonstrated dissemination in space (clinical evidence of optic neuritis and left arm paresthesia, supported by MRI lesions in the brain and spinal cord) and dissemination in time (clinical relapses separated in time, further supported by the presence of both enhancing and non-enhancing lesions on MRI). The positive CSF oligoclonal bands provide further confirmation.

Treatment Strategy

The treatment approach for MS is two-fold: managing acute relapses and starting a long-term disease-modifying therapy (DMT) to reduce future disease activity.

1. **Acute Relapse Management:**
    - A 3- to 5-day course of high-dose intravenous methylprednisolone will be administered to shorten the duration and severity of the current relapse (optic neuritis and sensory symptoms).
2.
3. **Long-Term Disease-Modifying Therapy (DMT):**
    - A comprehensive discussion will be held with Mr. Carter regarding the various available DMTs (injectable, oral, and infusion therapies). The goal is to start a high-efficacy therapy early to prevent future relapses and slow the accumulation of disability. Based on his desire for a highly effective oral medication, a choice like fingolimod or cladribine will be considered, pending baseline safety screening (e.g., bloodwork, cardiac evaluation, VZV serology).
4.
5. **Symptomatic Management:**

    - **Fatigue:** Education on energy conservation strategies, regular exercise, and potential for medications like amantadine or modafinil if lifestyle measures are insufficient.
    - **Referrals:** Referral to physical therapy to address any potential balance or sensory deficits and to an MS support group.
6.

Summary and Plan

Mr. Benjamin Carter is a 37-year-old male presenting with classic clinical and radiological evidence of Relapsing-Remitting Multiple Sclerosis. The diagnosis is confirmed based on established criteria. He is currently experiencing an acute relapse, which will be treated with high-dose corticosteroids. We will work with him to select and initiate a high-efficacy disease-modifying therapy as soon as possible to alter the long-term course of his illness. The focus is on aggressive early management to preserve neurological function and maintain his quality of life.

Follow-up

He will be seen in our clinic in 2 weeks to monitor the resolution of his acute relapse symptoms. We will see him again in 4-6 weeks to initiate the chosen DMT and provide further education. Regular follow-up appointments, typically every 3-6 months, and surveillance MRIs (usually annually) will be essential for long-term management.