How Prepared Are European Health Care Systems to Deliver a Future Alzheimer’s Treatment?

As the populations of European nations age, the devastating burden of Alzheimer’s disease on patients and families looms. The prevalence of the disease is expected to double between 2015 and 2050. Yet recent clinical trials give hope that a disease-modifying therapy might become available soon. The therapy would treat early-stage patients to prevent or delay the progression to dementia. When this therapy becomes available, are European health systems prepared to deliver it?
AN ASSESSMENT OF HEALTH CARE INFRASTRUCTURE IN FRANCE, GERMANY, ITALY, SPAIN, SWEDEN, AND THE UNITED KINGDOM

A therapy for early-stage disease means that millions of patients would need care

Recent clinical trials offer hope that an Alzheimer’s disease–modifying therapy may become available soon. The therapy would treat the disease at an early stage to prevent or delay the progression to dementia.

If a therapy becomes available, there would be millions of patients to

1. screen for MCI
2. evaluate for Alzheimer’s disease
3. test for biomarkers (cerebrospinal fluid assays or brain imaging)
4. treat with intravenous infusion therapy

A RAND study used simulation modeling to assess the health care system capacity to evaluate, test, and treat expected patients in six countries that represent 65 percent of the population in the European Union (EU). The analysis looked at a scenario in which a therapy is available in 2020 and is delivered monthly to patients with MCI due to Alzheimer’s disease.

Initially, 7.1 MILLION patients may seek evaluation by a dementia specialist.

2.3 MILLION patients may have MCI due to Alzheimer’s and be eligible for treatment.

Wait times for specialist visits and infusion therapy could delay access to care

<table>
<thead>
<tr>
<th></th>
<th>Maximum Waiting Time Based on Theoretical Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dementia specialist visits</td>
</tr>
<tr>
<td>France</td>
<td>&gt;12 months</td>
</tr>
<tr>
<td>Germany</td>
<td>No wait</td>
</tr>
<tr>
<td>Italy</td>
<td>&lt;6 months</td>
</tr>
<tr>
<td>Spain</td>
<td>6–12 months</td>
</tr>
<tr>
<td>Sweden</td>
<td>&lt;6 months</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>&gt;12 months</td>
</tr>
</tbody>
</table>

Delays in care could result in more than 1 million patients developing Alzheimer’s dementia while waiting for evaluation and treatment between 2020 and 2050.

NOTE: There are no waiting times for biomarker testing if cerebrospinal fluid assays are used for 90 percent of testing and positron emission tomography scans are used for 10 percent of testing.

Policies and planning could help increase capacity

**Establish** graduated clinical pathways to screen for cognitive impairment and develop better detection tools.

**Utilise** dedicated outpatient infusion centers in collaboration with hospitals, memory clinics, and other facilities.

**Ensure** appropriate reimbursement of services.

**Create** EU-wide guidance and best practices for coordinated and timely care.

A combination of reimbursement, regulatory, and workforce planning policies and innovation in diagnosis and treatment delivery is needed to expand capacity and to ensure that available capacity is leveraged optimally to treat patients with early-stage Alzheimer’s disease.
SPAIN: EXPECTED PATIENTS AND HEALTH CARE SYSTEM CAPACITY

Millions of patients could seek diagnosis and treatment

Of the 14.1 million people age 55 and older in 2019, 11.3 MILLION could seek screening in a doctor’s office. Of the 1.9 million who screen positive for MCI, 1.0 MILLION could seek a dementia specialist for evaluation (there are 4,424 neurologists, geriatricians, and geriatric psychiatrists, or 9.5 specialists per 100,000 people). 0.9 MILLION could be referred for biomarker testing. 0.4 MILLION might test positive for biomarkers and return to the specialist to learn about treatment. 0.3 MILLION could be recommended for infusion therapy.

Wait times might be extensive for specialist visits and infusion therapy

Average wait times in months

Specialist visits for evaluation are the most urgent constraint: Patients could wait an average of 10 months initially. In 2020, 3.9 million infusions might be needed; wait times for infusions persist for years. Wait lists until 2044.

No waits for biomarker testing because of the use of cerebrospinal fluid assays. While on wait lists, 171,000 people might develop Alzheimer’s dementia while waiting for evaluation and treatment.