New Alzheimer's drug and considerations for state I/DD agencies: Aducanumab: Panacea or Risk for Adults with Down Syndrome

Medical & Clinical Director Workgroup

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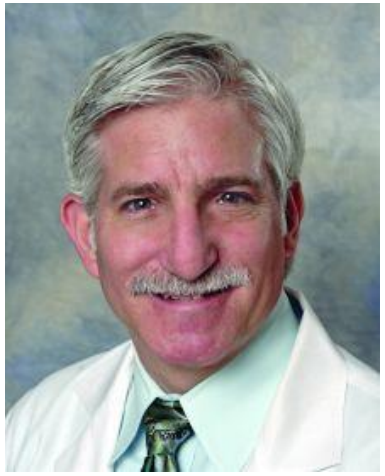
www.the-ntg.org

NASDDDS

National Association of State Directors of Developmental Disabilities Services

About us



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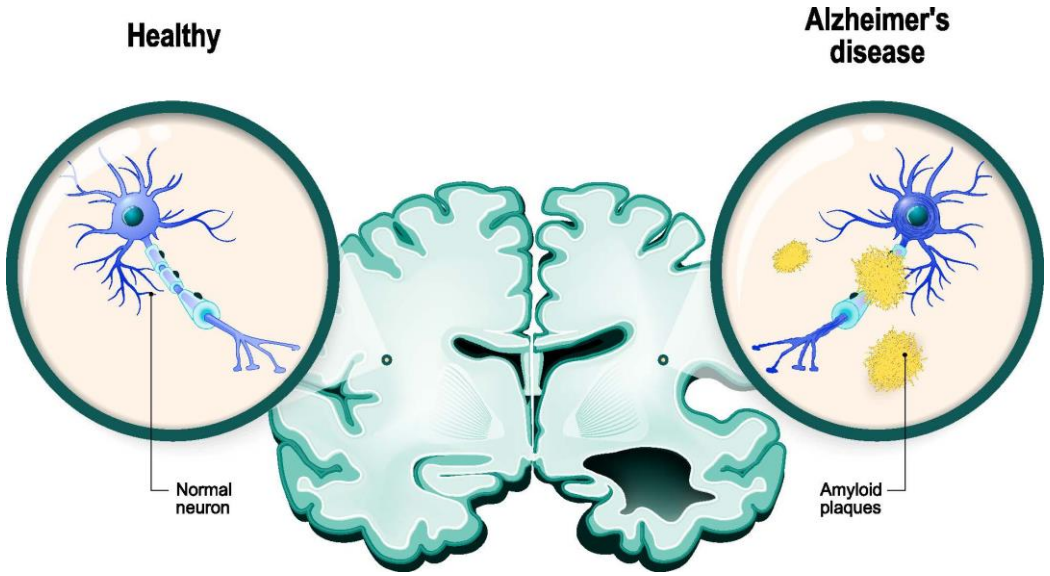
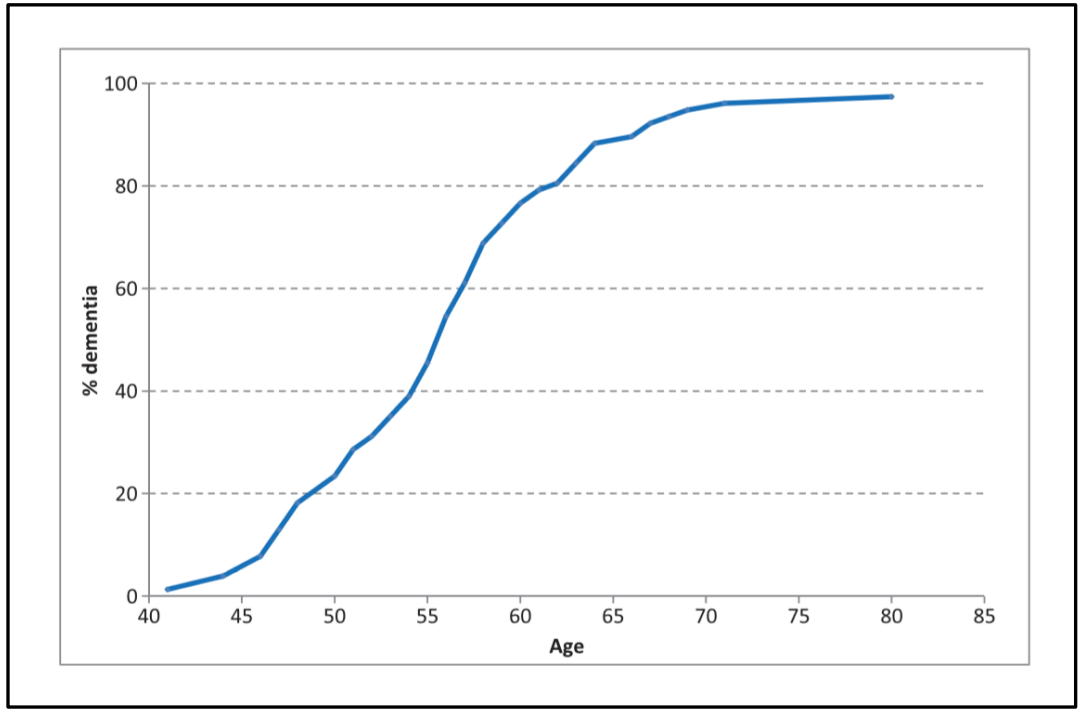
The Basics…

- What is aducanumab? What is Aduhelm?
- How the medication works?
- What is the controversy in general?
  - How was it approved?
  - Does is work?
  - Why does it cost so much?
  - Who can get it?
- What does all this mean to us (in the ID field)?
  - Now?
  - In the future?

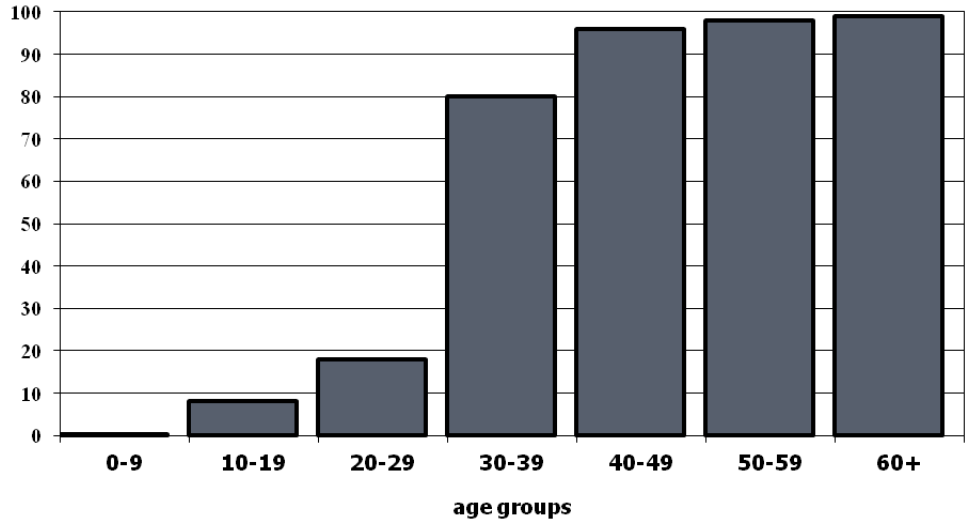
Alzheimer's Disease in Down Syndrome

- High prevalence of early onset AD due to having extra copy of chromosome 21 leading to accumulation of beta amyloid protein , tau protein and neurodegeneration
- People with Down's syndrome who develop Alzheimer's disease live, on average, 4-10 years from first symptoms; median 7 years
- Rapid decline can occur

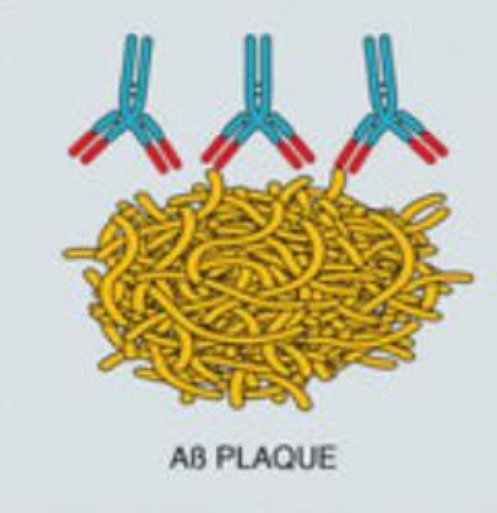




Percent persons with Down syndrome showing evidence of neurofibrillary tangles (NFT) and senile plaques (SP) at autopsy



What is aducanumab?



"Aducanumab (Aduhelm) is an antibody that targets amyloid-beta. The antibody preferentially binds to the aggregated amyloid-beta. This is because it targets an epitope that is not normally accessible in the amyloid-beta monomer. Through this interaction, Aduhelm could reduce the number of amyloid plaques present in the brain, potentially slowing neurodegeneration and disease progression."

[source: Alzheimer's News Today]

Aducanumab is the generic name for this specific medication

Aduhelm is Biogen's trade name for the drug

What are the controversies?

- **How was it approved?**
  - The FDA used its **Accelerated Approval Program**, which allows for earlier approval of drugs that treat serious conditions and that **fill an unmet medical need** based on a 'surrogate endpoint'. A 'surrogate endpoint' is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit – but is **not itself a measure of clinical benefit**.
- **Does it work?**
  - Aducanumab is an antibody that targets amyloid-beta. The antibody preferentially binds to the aggregated amyloid-beta and via this interaction, aducanumab could reduce the number of amyloid plaques present in the brain, potentially slowing neurodegeneration and disease progression. While the Biogen clinical trials showed a lessening of amyloid, the **data were unclear whether there was any cognitive benefit**.
- **What are the risks?**
  - **Changes are seen on the MRI** [*magnetic resonance imaging*] including brain swelling and small areas of bleeding during the treatments. Headaches and confusion can occur. **amyloid related imaging abnormalities (ARIA)]**
- **Why does is cost so much?**
  - Much has been made of the **$56,000 annual cost** of treating someone with Aduhelm; this is only the cost of the medication and does not include the costs of the pre-prescription assessment to determine whether Alzheimer's disease is present, nor does it include the associate peri-treatment costs for monitoring the drug's effects. The cost was set by Biogen and is being investigated by a Congressional committee.
- **Who can get it?**
  - The FDA announced on July 8th, that its current use was **limited to adults diagnosed with MCI or early-stage dementia associated with Alzheimer's disease**. While the FDA was silent on patient appropriateness beyond these two diagnostic categories, the **Expert Panel noted that it was NOT appropriate for use with adults with Down syndrome at this time**

Recommendations of the Aduhelm and Down Syndrome Medical Advisory Group

- Advance protocols for assessment and use agreed upon by an expert panel which should provide cautioned guidance for practitioners considering prescribing aducanumab in adults with DS (and other intellectual disabilities).
- A well-defined screening process should be in place for determining the stage of AD, as well as a recognized and approved process for the therapeutic use of aducanumab that all healthcare providers would follow to ensure safety and ability to determine efficacy in adults with DS.
- A commitment be made for early detection and screening by the nation's disability services provider network and state regulatory authorities to pick up on early symptoms at a stage when the use of aducanumab may be effective.
- Adults with DS, families, and other caregivers be part of the decision-making process for drug use and while the prescribed medical care is being provided.
- An orientation and education package be organized to help educate healthcare providers and any ancillary staff involved in the clinical use of this therapeutic.

Source: Aduhelm and Down Syndrome Medical Advisory Group. Aduhelm: Rush to Judgement? *Exceptional Parent*, July 2021.

A bag full of issues… (financial)

- Will **insurers** consider adults with Down syndrome eligible for coverage?
- Whether there will be **financial aid** for families due to the annual cost of the drug?
- What **equity considerations** will be supported by DHHS and the Courts?
- How will **ancillary costs** (pre-prescription PET scans and assessments and post-procedure associated surveillance) be covered for families of adults with Down syndrome?
- Will **state developmental disabilities agencies** be required to initiate referrals for assessments and provide coverage for treatment for adults in their services?
- What will be the **financial implications** for provider agencies?

Actions affecting agencies…

- ✓ Adapting and using protocols that guide assessment and decision-making for the use of the drug with this group
- ✓ Undertaking systematic screening for early symptoms of Alzheimer's disease
- ✓ Benefiting from research determining optimal age for prophylactic use of drug
- ✓ Undertaking behavioral mitigation practices to help adaptation to monthly drug infusion
- ✓ Involving families and caregivers in the prescribing and decision-making process
- ✓ Providing orientation and education to healthcare providers and ancillary staff involved with use and aftercare

For more information…

https://www.the-ntg.org/aduhelm-information