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Editorial

Dear Colleagues

Alzheimer's disease is the most common type of dementia. Certain drugs like *Cholinesterase inhibitors* are currently used for mild to moderate Alzheimer's symptoms. FDA has granted approval for a new drug, *Legembi* that targets the fundamental pathophysiology of the disease. Another 'disease modifying drug', *Lecanemab* has been found to be effective in the management of Alzheimer's disease in a recent study. It reduces the markers of amyloid and results in reduced decline of measures of cognition and function. However, it has been associated with adverse events and hence longer trials are warranted to determine the efficacy and safety for this drug

New devices are now available for the remote monitoring of Parkinson's disease (*Kinesia 360 and KinesiaU (Great Lakes NeuroTechnologies)*, *PDMonitor (PD Neurotechnology)*, *Personal KinetiGraph (Global Kinetics)* and *STAT-ON (Sense4care)*).

Human gene therapy seeks to modify the expression of a gene to alter the biological properties of living cells for therapeutic use. *Etranacogene dezaparvovec* is the first FDA-Approved Gene Therapy for Hemophilia. It significantly reduces bleeding episodes and the need for frequent prophylactic coagulation factor IX infusions, amongst patients with severe or near-severe disease. A new gene therapy, *Nadofaragene firadenovec-vncg (Adstiladrin)* is being successfully used for those adults whose non-muscle-invasive bladder cancer (NMIBC) does not respond to immunotherapy with bacillus Calmette-Guérin (BCG).

Monoclonal antibodies are the proteins that can bind to certain targets in the body, such as antigens on the surface of cancer cells. There are many kinds of monoclonal antibodies, and each monoclonal antibody is made so that it binds to only one antigen. Monoclonal antibodies are being used in the diagnosis and treatment of many diseases, including some types of cancer. They can be used alone or to carry drugs, toxins, or radioactive substances directly to cancer cells. *Etolizumab* is a monoclonal antibody that has been used successfully in patients with moderately to severely active Crohn's disease, as an induction and maintenance therapy. Another monoclonal antibody, *Ustekinumab* was found effective in the treatment of psoriatic arthritis, independent of methotrexate use.

Newer guidelines have been issued by NICE for *hip fracture management, management of heart transplant recipients, trabeculectomy with a biodegradable collagen matrix implant for glaucoma, and laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease*. Joint Commission International (JCI) in a multicenter collaborative effort has been able to reduce preventable patient harm due to *Retained Surgical Items*.

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I. Drugs

FDA Grants Accelerated Approval for Alzheimer's disease Treatment

Source: The FDA, January 2023

Link: <https://www.fda.gov/news-events/press-announcements/fda-grants-accelerated-approval-alzheimers-disease-treatment>

Leqembi via the Accelerated Approval pathway for the treatment of Alzheimer's disease. Leqembi is the second of a new category of medications approved for Alzheimer's disease that target the fundamental pathophysiology of the disease.

New Gene Therapy for Certain Bladder Cancer

Source: The JAMA, January 2023

Link: <https://jamanetwork.com/journals/jama/fullarticle/2800443>

Nadofaragene firadenovec-vncg (Adstiladrin) as a nonreplicating adenoviral vector-based gene therapy for adults whose non-muscle-invasive bladder cancer (NMIBC) doesn't respond to immunotherapy with bacillus Calmette-Guérin (BCG).

First FDA-Approved Gene Therapy for Hemophilia

Source: The JAMA, January 2023

Link: <https://jamanetwork.com/journals/jama/article-abstract/2800046>

Etranacogene dezaparvovec, significantly reduced bleeding episodes and the need for frequent prophylactic coagulation factor IX infusions among patients with severe or near-severe disease.

II. Clinical Research

Etrolizumab as induction and maintenance therapy in patients with moderately to severely active Crohn's disease (BERGAMOT): a randomised, placebo-controlled, double-blind, phase 3 trial

Source: The Lancet, January 2023

Link: [https://www.thelancet.com/journals/langas/article/PIIS2468-1253\(22\)00303-X/fulltext](https://www.thelancet.com/journals/langas/article/PIIS2468-1253(22)00303-X/fulltext)

A significantly higher proportion of patients with moderately to severely active Crohn's disease achieved clinical remission and endoscopic improvement with etrolizumab than placebo during maintenance, but not during induction.

Methotrexate plus ustekinumab versus ustekinumab monotherapy in patients with active psoriatic arthritis (MUST): a randomised, multicentre, placebo-controlled, phase 3b, non-inferiority trial

Source: The Lancet, January 2023

Link: [https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913\(22\)00329-0/fulltext](https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(22)00329-0/fulltext)

Interleukin (IL)-12 and IL-23 inhibition with ustekinumab is an effective treatment for psoriatic arthritis independent of methotrexate use; concomitant methotrexate did not increase efficacy of ustekinumab (based on DAS28).

Bivalent Omicron BA.1–Adapted BNT162b2 Booster in Adults Older than 55 Years

Source: The NEJM, January 2023

Link: <https://www.nejm.org/doi/full/10.1056/NEJMoa2213082>

The candidate monovalent or bivalent omicron BA.1–adapted vaccines had a safety profile similar to that of BNT162b2 (30 µg), induced substantial neutralizing responses against ancestral and omicron BA.1 strains, and, to a lesser extent, neutralized BA.4, BA.5, and BA.2.75 strains.

Lecanemab in Early Alzheimer’s Disease

Source: The NEJM, January 2023

Link: <https://www.nejm.org/doi/full/10.1056/NEJMoa2212948>

Lecanemab reduced markers of amyloid in early Alzheimer’s disease and resulted in moderately less decline on measures of cognition and function than placebo at 18 months but was associated with adverse events. Longer trials are warranted to determine the efficacy and safety of lecanemab in early Alzheimer’s disease.

III. Devices

Devices for remote monitoring of Parkinson’s disease

Source: The NICE, January 2023

Link: <https://www.nice.org.uk/guidance/dg51>

Kinesia 360 and KinesiaU (Great Lakes NeuroTechnologies), PDMonitor (PD Neurotechnology), Personal KinetiGraph (Global Kinetics) and STAT-ON (Sense4care) for remote monitoring of Parkinson’s disease.

IV. Treatment Guidelines

Trabeculectomy with a biodegradable collagen matrix implant for glaucoma

Source: The NICE, January 2023

Link: <https://www.nice.org.uk/guidance/ipg750>

Trabeculectomy with a biodegradable collagen matrix implant for glaucoma. This involves cutting a small flap in the white of the eye and putting a patch over the flap to help healing and prevent scarring. Fluid slowly drains out of the flap and the patch dissolves over time. The aim is to reduce pressure in the eye and slow or stop damage to sight.

Laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease

Source: The NICE, January 2023

Link: <https://www.nice.org.uk/guidance/ipg749>

Laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease. This involves placing a ring of beads outside of the food pipe, just above the stomach. Magnets inside the beads hold them together to keep the food pipe closed but are weak enough to move apart to allow food or liquid to be swallowed. The aim is to prevent acid reflux

Hip fracture: management

Source: The NICE, January 2023

Link: <https://www.nice.org.uk/guidance/cg124>

To improve care from the time people aged 18 and over are admitted to hospital through to when they return to the community. Recommendations emphasise the importance of early surgery and coordinating care through a multidisciplinary Hip Fracture Programme to help people recover faster and regain their mobility.

New guidelines for management of heart transplant recipients

Source: The Uptodate, January 2023

Link: <https://www.uptodate.com/contents/whats-new-in-cardiovascular-medicine>
https://www.uptodate.com/contents/heart-transplantation-in-adults-donor-selection-and-organ-allocation?sectionName=Donation%20after%20circulatory%20death&topicRef=8353&anchor=H3552251970&source=see_link#H3552251970

The management of heart transplant by the International Society for Heart and Lung Transplantation. New content on the safe use of hearts from donors with hepatitis C infection, technological requirements for centers wishing to use hearts from donors declared dead after circulatory arrest, and management issues related to the ongoing COVID-19 pandemic

ADA guidelines for hypertension treatment in individuals with diabetes

Source: The Uptodate, January 2023

Link: <https://www.uptodate.com/contents/whats-new-in-endocrinology-and-diabetes-mellitus>
https://www.uptodate.com/contents/overview-of-general-medical-care-in-nonpregnant-adults-with-diabetes-mellitus?sectionName=Blood%20pressure%20control&topicRef=8354&anchor=H14&source=see_link#H14

Hypertension management is a cornerstone of cardiovascular risk reduction in patients with diabetes. In its recently published guidelines, treatment targets for systolic and diastolic blood pressures of less than 130 mmHg and less than 80 mmHg, respectively, for most patients with diabetes. These treatment targets should be implemented only if they can be achieved safely, and treatment goals should be individualized based on cardiovascular risk, patient preferences, and possible adverse effects of therapy.

V. Healthcare Administration

A Multicenter Collaborative Effort to Reduce Preventable Patient Harm Due to Retained Surgical Items

Source: The JCI, January 2023

Link: [https://www.jointcommissionjournal.com/article/S1553-7250\(22\)00239-2/fulltext](https://www.jointcommissionjournal.com/article/S1553-7250(22)00239-2/fulltext)

Implementation of an RSI bundle can be done reliably, can improve near-miss reporting, and can reduce patient harm. Variation in process reliability between centers suggests the significance of overcoming cultural and organizational barriers.

Impact of Adherence to a Standardized Oxytocin Induction Protocol on Obstetric and Neonatal Outcomes

Source: The JCI, January 2023

Link: [https://www.jointcommissionjournal.com/article/S1553-7250\(22\)00243-4/fulltext](https://www.jointcommissionjournal.com/article/S1553-7250(22)00243-4/fulltext)

Adherence to the oxytocin administration protocol was associated with a decrease in postpartum hemorrhage but an increased risk of delivery by cesarean section.