

**NEWSLETTER OCTOBER 2023** 

## MEDI UPDATES

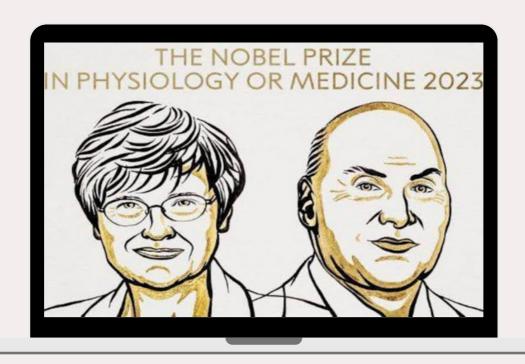
Chaitra Navratri is celebrated for nine days and each of the nine days are dedicated to the nine different avatars of Goddess Durga. It is believed that Goddess Durga arrives from heaven to stay with her devotees during this time, and so it is considered to be an auspicious timeThe legend associated with Navratri speaks about the great battle between the powerful demon Mahishasura and Goddess Durga.

Each year, on each day of Navratri, an incarnation of "Goddess Durga" is worshipped to celebrate the day of her victory over Mahishasura, and the ultimate victory of 'Good over Evil



NEUROSURGERY & NEUROLOGY
CARDIOLOGY
NEPHROLOGY & UROLOGY
CRITICAL CARE & PULMONOLOGY
LAP SURGERY & PLASTIC SURGERY
MEDICINE & PAEDIATRIC (NEONATOLOGY)
ORTHOPEDIC & JOINT REPLACEMENT
ANESTHESIA & EMERGENCY MEDICINE
RADIOLOGY & INTERVENTIONAL
RADIOLOGY
PATHOLOGY & DIAGNOSTICS
GASTROENTEROLOGY
ENT, PSYCHIATRY & ALLIED SPECIALITIES

# 2023 NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE



### **WINNERS**

The 2023 Nobel Prize in Physiology or Medicine was awarded to <u>Katalin Karikó</u> (born 1955) and <u>Drew Weissman</u> (born 1959) "for their discoveries concerning nucleoside base modifications that enabled the development of effective <u>mRNA vaccines</u> against <u>COVID-19</u>"

## Research Paper Review •

- Submental Intubation: A Valuable Technique for
  - Airway Management in Complex Head and
    - **Maxillofacial Traum)** •

## RESEARCH (IJSR)

#### **ARTICLE PUBLISHED BY**

DR SANDEEP KAPADIA: ANESTHETIC & INTENSIVIST
DR BHARAT RATHVA: PLASTIC SURGEON
DR DHARA SHUKLA: EMERGENCY PHYSICIAN



Abstract: Patients with complex head and maxillofacial trauma present with unique challenges to the anesthesiologist. Provision and maintenance of a secured airway control throughout the surgery is of prime importance. it is always needed to explore the better available options for airway management according to the individual needs of patients and surgery. Submental intubation (smi) is one such technique that can be very useful. Submental intubation is an interesting alternative to tracheostomy, especially when short - term postoperative control of airway is desirable with the presence of undisturbed access to oral as well as nasal airways and a good dental occlusion. There were no perioperative complications related to the submental intubation. Submental intubation is a simple technique associated with low rates of morbidity. it is an attractive alternative to tracheotomy in the surgical management of selected cases of panfacial trauma. We report an interesting case of leforte type 3 injury for open reduction and internal fixation with plating, for which we opted for submetal intubation as an airway management.





Research Paper link for Review

https://www.ijsr.net/getabstract.php?paperid=SR23812153300

## Case Files : Medicine : ... An Interplay between Drugs, Virus & . . Immune System : ...

Patient Praveen Kumar,28 yr old ,came in ER with history of high grade fever since 3 days. Erythematous skin rash since 7 days,yellowish urine since 7 days and swelling over face,neck and axilla.

Patient had history of chemical burns in eyes one month back for which he had undergone surgical intervention in both eyes.

Patient was on oral antibiotics doxycycline and analgesic diclofenac since 4 weeks.

Patient had DRESS i.e.Drug reaction with eosinophilia and systemic symptoms (DRESS) is a severe adverse drug reaction characterized by an extensive skin rash in association with visceral organ involvement, lymphadenopathy, eosinophilia, and atypical lymphocytosis.

USG suggestive of altered liver parenchymal pattern, increase echogenicity both kidneys and lymphnode enlarged in axilla, cervical as well as mesenteric.

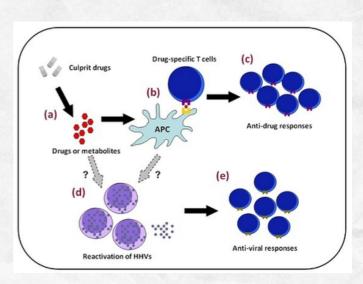
Patient was treated with iv steroids Methylprednisolone 0.5-1 gm per/kg dose.

And hydration by iv fluids, symptomatic treatment for hepatitis..

Within 2 days skin rashes improved and within 5 days Ifts and rft improved.

Patient was discharged in 5 days with oral steroids...

DRESS SYNDROME IS A COMPLEX DISEASE THAT IS
COMPRISED OF COMPLICATED INTERACTIONS AMONG DRUGS,
VIRUSES, AND IMMUNE RESPONSES. AS A RESULT OF PAST
RESEARCH ENDEAVORS, THE UNDERSTANDING OF DRESS
SYNDROME HAS GRADUALLY INCREASED. HOWEVER, SOME
MAJOR ISSUES STILL REQUIRE CLARIFICATION, SUCH AS WHAT
DETERMINES THE DEVELOPMENT OF DIFFERENT TYPES OF
CD8+ DRUG-SPECIFIC T CELLS IN INDIVIDUALS OF THE SAME
GENETIC BACKGROUND IN TERMS OF HLA ALLELES, THE
MECHANISMS OF IMMUNOSUPPRESSION IN THE EARLY PHASE
OF THE DISEASE, AND THE KEY STEPS OF HHV REACTIVATION.
FURTHER INVESTIGATIONS ARE WARRANTED TO ADDRESS
THESE ISSUES AND MAY SHED LIGHT ON THE PREVENTION OF
OR NEW TREATMENTS FOR THE DISEASE.





Case Presentation by

DR NAAZ HUMDULAY Senior Physician and Intensivist "There is a moment, a cusp When sum of gathered experience is worn down by details of living, we are never so wise as when we live this moment."



# Book Troverts When Breath Becomes Air By Paul Kalanithi Must Read

Life is short. But we go about most days not thinking about our inevitable death. It might not be a pleasant thing to dwell on, but maybe if we did we would try to live more meaningful lives. Maybe we would spend less time working and more time with family or helping others. Maybe we would leave some sort of wisdom for those who come after us.

When neurosurgeon <u>Paul Kalanithi</u> got the news that he was going to die of cancer in his mid-thirties, he wanted to make sure he left his piece of wisdom in writing. Writing a friend about his diagnosis he said, "The good news is that I've already outlived two Brontës, Keats and Stephen Crane. The bad news is that I haven't written anything."

Writing it wouldn't be easy because of his fragile and worsening health. In When Breath Becomes Air, Kalanithi shares his feelings on being diagnosed with terminal cancer at the peak of his life and career with so much potential in front of him. Here are the 3 most interesting things I learned about this man's life:

- 1. Kalanithi was passionate about neuroscience and literature.
- 2.A career in the medical field proved difficult and taught him much about the intricacies of life and death right from the start.
- 3. Terminal cancer made Kanaithi's think a lot about his career, life, and the future of his family.

Eventually, he became too weak to finish the book. Lucy wrote the epilogue, describing him facing death with integrity. It's unfinished, but perhaps that's what makes this book about confronting the uncertainty of death most realistic. But we are thankful to Dr. Kalanithi for sharing such beautiful thoughts about what gives life meaning.

### FEBRILE NEUTROPENIA



FEVER ≥ 38.3°C (oral)



## **ASSESS & RESUSCITATE**

Investigations for risk stratification + ID of nidus of infection Thorough history and physical examination **Never** perform a direct rectal examination Early initiation of antibiotic therapy Assess patient stability EY & TREA Resuscitate as needed

Multinational Association for Supportive Care in Cancer (MASCC)

#### **LOW RISK**

MASCC score ≥21

Outpatient Management

**Broad coverage** ORAL antimicrobials

(GP + GN + anaerobic coverage)

E.g., Fluoroquinolone + Clavulin OR Clindamycin if penicillin allergy

#### HIGH RISK\*

MASCC score <21

Inpatient Management

**Broad coverage** IV antimicrobials

(GP + GN + anaerobic coverage)

E.g., Piperacillin-Tazobactam 4.5g IV q8h OR Ceftazidime 2g IV g8hrs

## +Vancomvcim

- if risk factors for MRSA

- e.g., Amphotericin B, Caspofungin, or Fluconazole if:
  - isolation of yeast from a sterile site
  - high risk of fungal infection (history, exposure)
     fever persisting beyond 4 days of antimicrobials
     recurrence of fever while on therapy

  - evidence of new pulmonary infiltrates after starting antibiotics

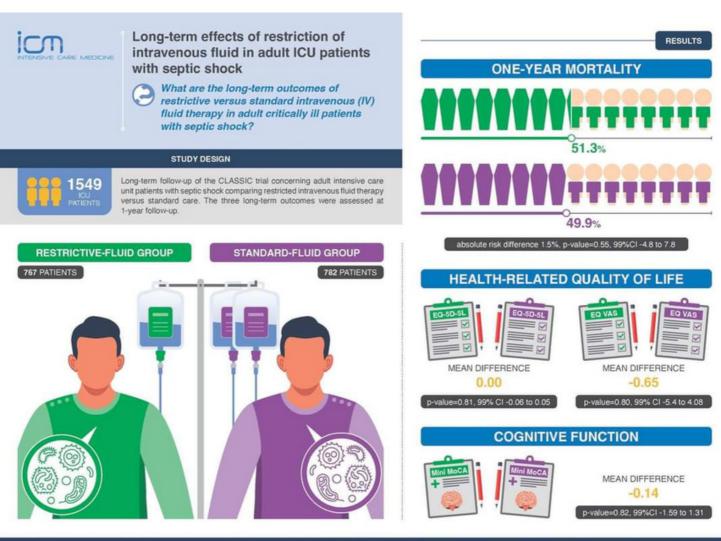
- in high risk patients if expected to suffer from prolonged

#### \*HIGH RISK:

- hematologic malignancies
- extensive neoplastic disease
- high risk chemotherapeutic regimens
- age > 65
- poor health or status
- prior episode of febrile neutropenia

\*neutrophil nadir is usually between 7-14 days following chemotherapy





CONCLUSIONS

Among adult ICU patients with septic shock, restrictive versus standard IV fluid therapy resulted in similar survival, HRQoL, and cognitive function at 1 year, but clinically important differences could not be ruled out.

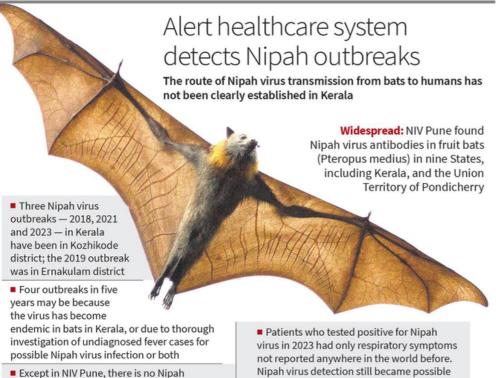
## Long-term effects of restriction of intravenous fluid in adult ICU patients with septic shock

Purpose: To assess long-term outcomes of restrictive versus standard intravenous (IV) fluid therapy in adult intensive care unit (ICU) patients with septic shock included in the European Conservative versus Liberal Approach to Fluid Therapy in Septic Shock in Intensive Care (CLASSIC) trial.

Results: Among 1554 randomized patients, we obtained 1-year data on mortality in 97.9% of patients, HRQoL in 91.3%, and cognitive function in 86.3%. One-year mortality was 385/746 (51.3%) in the restrictive-fluid group versus 383/767 (49.9%) in the standard-fluid group, absolute risk difference 1.5%-points [99% confidence interval (CI) – 4.8 to 7.8

Conclusions: Among adult ICU patients with septic shock, restrictive versus standard IV fluid therapy resulted in similar survival, HRQoL, and cognitive function at 1 year, but clinically important differences could not be ruled out.

## Virus Updates: Nipah Virus





There are no vaccines to prevent or cure the infection, which has a mortality rate of between about 70%. The usual treatment is to provide supportive care. Infected people initially develop symptoms that include fever, respiratory distress, headaches, and vomiting, the World Health Organization (WHO) says.

- Nipah virus detection still became possible due to doctors' high index of suspicion
  - In the latest outbreak, a combination possible index case, clustering of cases, unusual symptoms, and proximity to the 2018 outbreak epicentre - led to testing for Nipah virus
- Nipah virus (NiV) can spread to people from: Direct contact with infected animals, such as bats or pigs, or their body fluids (such as blood, urine or saliva) Consuming food products that have been contaminated by body fluids of infected animals (such as palm sap or fruit contaminated by an infected bat)
- Nipah virus can be transmitted to humans from animals (such as bats or pigs), or contaminated foods and can also be transmitted directly from human-to-human.
- · Nipah is a zoonotic virus, meaning it can be transmitted between animals and humans but can also spread through contaminated food or from human to human. It kills 40 to 75 per cent of people who become infected, according to the health organization.

Pls Join our LinkedIn Group: https://www.linkedin.com/groups/9233179



virus testing facility anywhere in India.

molecular lab in Calicut Medical College

be detecting Nipah cases

Kerala screens for Nipah virus routinely in a

■ Patients with unusual symptoms are tested

for Nipah virus, the reason why Kerala might

Divine Life Hospital, Post Office Road, Adipur Divine Kutch Life Care, 7 Arrows, Bhuj Divine Hospital, Anjar

www.divinelifehospital.com www.mediaidhealthcarellp.com

admin@divinelifeadipur.com



Dr Mitesh Modi is working as Laproscopic Surgeon at Divine Life Hospital, Adipur and DKLC, Bhuj

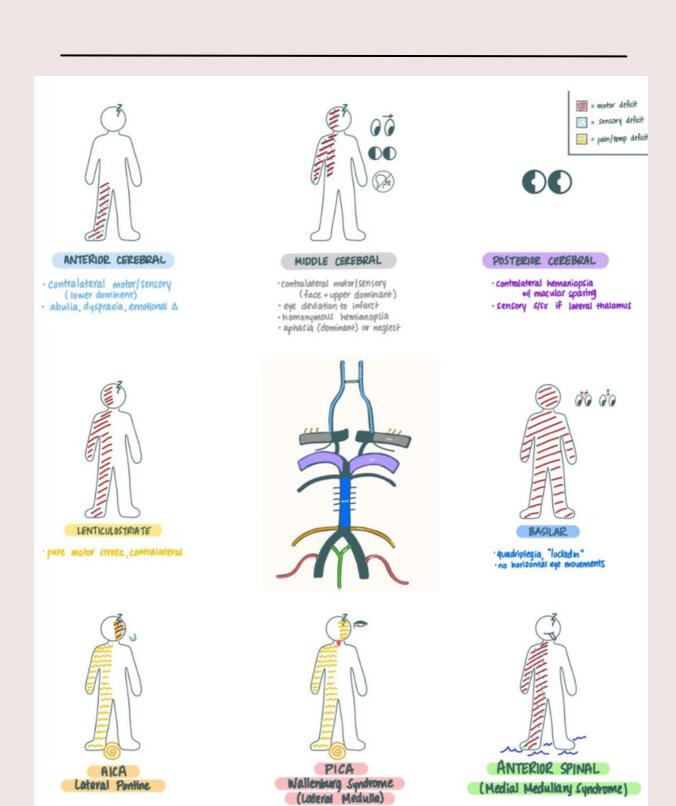
He has mastered laproscopic surgical modalities and doing exceptional work benefiting communities around.

**ACHEIVEMENTS** 





# STROKE SYNDROMES



· dysphagia /hoarseness

contralateral body
- Ipsilateral Homer

· I pain temp ipsilateral face,

Vertigo, nystagmus, ataxia

· ipsilateral tacial paralysis

anterior tonque

I painltemp ipsilateral face,
 contralateral body
 I (acrimation / Salivation / taste)

· vertigo/ nystagmus/ ataxia/ dy(metria

· contralateral paralysis

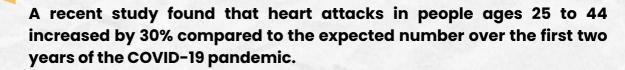
· loss of proprioception

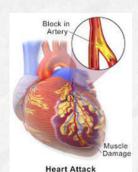
· tongue deviates to lesion



# Young people are more likely to die of heart attacks post-COVID, study finds. But why?

# Topic Discussion





according to a September 2022 study by Cedars Sinai hospital in Los Angeles. People between 25 and 44, who saw a 29.9% relative increase in heart attack deaths over the first two years of the pandemic.

Adults between 45 and 64 saw a 19.6% relative increase in heart attack deaths, and those 65 and older saw a 13.7% relative increase, according to a press release from Cedars Sinai.



It seems to stir up inflammation in the blood vessels. It seems to also cause in some people an overwhelming stress — whether it's related directly to the infection or situations around the infection — that can also cause a spike in blood pressure."

The reason for the relative rise in young people in particular is unclear, but one theory, Cheng said, is that the virus's impact on the cardiovascular system in some people may be due to an excessive immune system response and that young people are more likely to have stronger immune systems.



A February 2023 study found the inflammatory immune response to a COVID-19 infection can cause calcium to leak from the heart, potentially leading to a fatal, irregular heartbeat. The subjects in this study weren't vaccinated, and research shows a COVID-19 infection is more likely to cause heart problems than vaccination, according to the Centers for Disease Control and Prevention.



Doctor in Focus - Dr Abhimanyu Singh, Cardiologist

Dr Abhimanyu Singh is Consultant Cardiologist working at Divine Life Hospital, Adipur.

His expertise is in treating Cardiac Diseases and Cardiac Procedures like Angiography, Angioplasty etc Hospital also offers services in PMJAY, Mediclaim & Corporate Credit Programmes

# TALK SERIES: COUGH

# WHAT IS A COUGH?

A cough is an important reflex that helps clear out the body's airways. The airways include the windpipe, or "trachea," and the bronchi, which are the tubes that carry air within the lungs.

# WHAT CAUSES A COUGH?

Viral infections
Smoking cigarettes or vaping
Postnasal drip
Lung conditions
Acid reflux
ACE inhibitors

## HOW CAN I CARE FOR MYSELF AT HOME

cool mist humidifier
Drink warm liquids, like
tea
Avoid smoking
Wear Mask
cough drops
avoid the things that
you are allergic to

#### WHEN SHOULD I CALL THE DOCTOR?

You have trouble breathing or noisy breathing (wheezing).
You have a fever or chest pain.
You cough up blood, or yellow or green mucus.

You cough so hard that it makes you throw up.

Your cough gets worse or lasts longer than 14 days.

You have a cough and have lost weight without trying to.



#### INTERVENTIONAL RADIOLOGY

# DR JAIDEEP JAGANI

DR JAIDEEP JAGANI CONSULTANT IR

DIVINE LIFE HOSPITAL ADIPUR

We are happy to announce 50 + successful IR procedures in short span.

Interventional Radiology Department and proudly completed more than 50 Vascular & Non Vascular variety of IR procedures ranging from Neuroangio, Lower limb Angio, Dialysis AV fistula graphy & plasty, PTBD, PCN Insertions, Antegrade DJ stenting, USG Guided Compression of Psueudoaneursyms, Biopsies, Cold abscssess, Psoas drainges, Thoracic & Abdominal drainage procedures, Rf & Laser Ablations for Varicose Veins to name a few in span of just few months!

#### FACT-CHECK: IT'S TIME TO RETHINK DIABETES MYTHS

#### MYTH 1: DIABETES IS CAUSED BY EATING TOO MUCH SWEET FOOD

According to the American Diabetes Association, individuals with diabetes can enjoy sweets, chocolates, or sugary foods, as long as they are incorporated into a balanced meal plan and accompanied by exercise

#### MYTH 2: PEOPLE WITH DIABETES SHOULDN'T EAT FRUITS.

Fruit is a nutritious choice that can satisfy hunger and fulfill daily dietary requirements. However, it's important to note that most fruits contain sugar. Therefore, individuals with diabetes need to be mindful of their fruit consumption

#### MYTH 3: INSULIN CURES DIABETES.

Insulin treatment replaces or supplements the body's own insulin with the goal of achieving normal or near-normal blood sugar levels and preventing or minimising complications

#### MYTH 4: PEOPLE WITH DIABETES MUST AVOID CARBS.

Consuming a controlled amount of carbohydrates per meal can help manage blood sugar levels, especially when taking specific oral medications or long-acting insulin

Global data shows a significant rise in the incidence rate of type 2 diabetes among adolescents and young adults (aged 15 to 39 years) from 117 to 183 per 100,000 population between 1990 and 2019

### **FACT CHECK**





First Check is a unique fact-checking collaborative pan-Asia initiative in terms of its format and approach. This initiative is bringing journalists, doctors and technologists together from across Asia to identify and combat medical misinformation, rumours and unscientific claims. First Check is an initiative of <a href="HealthLEADS">HealthLEADS</a> which is run by <a href="OW DataLEADS">OW DataLEADS</a> - an independent media organisation and registered as a private limited

# AN UPDATE ON EIGHT "NEW" ANTIBIOTICS AGAINST MULTIDRUG-RESISTANT GRAM-NEGATIVE BACTERIA SERIES ONE - PLAZOMICIN









**PLAZOMICIN** 

**TEMOCILLIN** 

Cefiderocol

Eravacycline



Ceftazidime/ Avibactam



Ceftolozane/ Tazobactam



Meropenem/ Vaborbactam



IMIPENEM-CILASTATIN/RELE BACTAM

### **PLAZOMICIN**

Plazomicin is a synthetic aminoglycoside, and like other aminoglycosides, it inhibits bacterial protein synthesis and has dosedependent bactericidal activity in vitro. The FDA approved plazomicin (brand name Zemdri) in 2018 for use in cUTI and pyelonephritis at a dose of 15 mg/kg IV, QD. The plazomicin FDA package insert includes nephrotoxicity and ototoxicity as possible side effects. In vitro, plazomicin is active against > 95% of Enterobacterales isolates, but only in 30 to 40% of Acinetobacter spp. or P. aeruginosa isolates originated from North America and Europe (i.e., susceptible at FDA susceptibility breakpoint ≤ 2 mg/L). It is active against ESBL isolates, and against 84.6% to 97.6% of carbapenem-resistant isolates. Two clinical studies have been conducted in patients with complicated urinary tract infection (cUTI) comparing plazomicin 15 mg/kg IV, QD with meropenem 1 g IV, TID and levofloxacin 750 mg IV, QD for up to 10 days. Both studies showed noninferiority of plazomicin

## **BRAIN TEASERS**

Can you find the mistake?

1111 2222 3333 4444 5555

6666 7777 8888 9999 0000

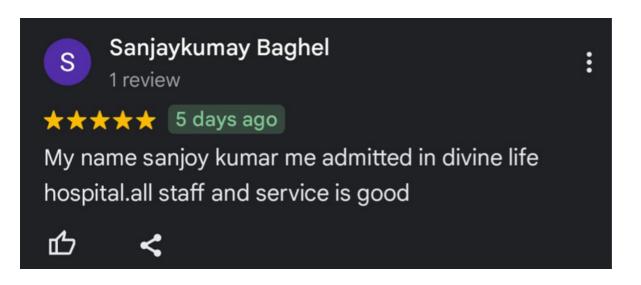
Can you find a mistake in the picture below?

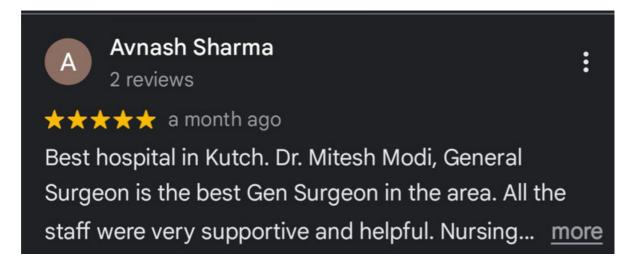


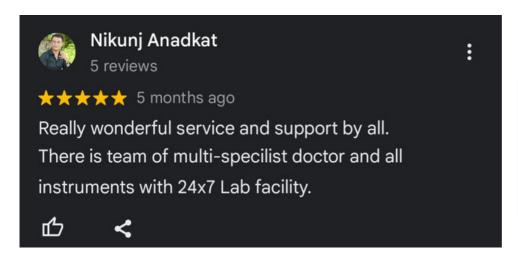
How many squares can you find in the figure below?



## **REVIEWS**

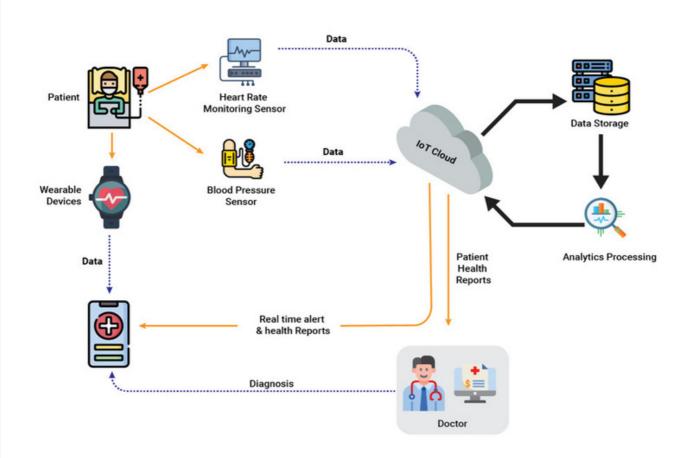








## DIGITAL HEALTH - IOT



#### IOT

IoT enabled smart and connected solutions like smart sensors, wearable devices, and smart health monitoring systems are used to unleash the potential growth of the healthcare industry. They will do this by improving the treatment using efficient health tracking. The growing popularity of IoT in healthcare and medical fields has raised modern techniques i.e., Internet of Medical Things (IoMT). The IoMT is an ecosystem of smart devices that can communicate with each other in a real-time environment and formulate results. This reduces human errors to a vast degree and eliminates a lot of decision-making delays.





**FUTURE TECH** 

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- Quality Care
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- Trustworthy

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