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# TODAY'S ANALYSIS (02 December 2024)

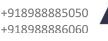
## **TOPICS TO BE COVERED**

- NEW ZEALAND, AUKUS & CHINA
- INDIA SUCCESSFULLY TESTS K4 NUCLEAR CAPABLE MISSILE

**FROM INS ARIGHAAT** 

- HEALTHCARE IN INDIA
  - **HEALTHCARE IN ANCIENT PERIOD**
- MCQs

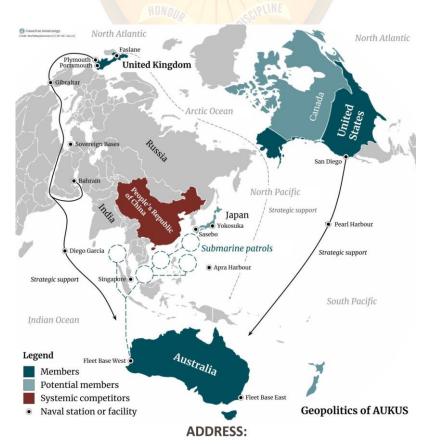
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## **NEW ZEALAND, AUKUS & CHINA**

- New Zealand finds itself in a delicate position between its longstanding relationship with China and its possible involvement in the AUKUS security pact, which could significantly shift its regional strategic dynamics.
- Chinese Ambassador to New Zealand, Wang Xiaolong, has warned that joining AUKUS could strain New Zealand's ties with China, urging the country to carefully consider its long-term interests.
- While New Zealand is exploring its options in relation to AUKUS, it has not yet made any definitive decisions about joining the pact, despite ongoing consultations.

### THE GEOPOLITICS INVOLVED



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### **OVERVIEW OF AUKUS**

Aspect	Details	
Launch Year	2021	
Members	The United States, the United Kingdom, and Australia	
Purpose	AUKUS aims to counter China's growing influence in the Indo-Pacific region and promote security cooperation.	
Main Components	1. Pillar 1: Nuclear-powered submarine fleet for Australia.	
	2. <b>Pillar 2</b> : Advanced military technology and capability sharing in AI, quantum tech, cyber warfare, hypersonic weapons, undersea warfare, and more.	

Aspect	Details	
Submarine Component	- Australia to receive nuclear-powered attack submarines (SSN-AUKUS) based on British design, but with American technology.	
	- AUKUS aims to equip Australia with eight nuclear-powered submarines, marking a significant boost in Australia's military capabilities.	
Nuclear Non-Prolifera tion	The submarines will not be armed with nuclear weapons due to Australia's commitment to the Nuclear Non-Proliferation Treaty (NPT), ensuring the fleet remains in compliance with the treaty's terms.	
Strategic Focus	Strengthening regional security through technology sharing and military advancements, with a specific emphasis on countering China's regional military and economic influence.	

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### **CHINA'S REACTION TO AUKUS**

Concern	Details	
Wang Xiaolong's Warning	China's Ambassador to New Zealand, Wang Xiaolong, cautioned that New Zealand's involvement in AUKUS <b>could jeopardize its diplomatic and trade relations</b> with China. He urged New Zealand to carefully weigh the implications for regional security and its long-term interests.	
Zero-Sum Mentality	Wang denounced AUKUS as promoting a "zero-sum Cold War mentality" that could escalate regional tensions and potentially lead to conflict. He emphasized that the pact could heighten military competition in the Indo-Pacific region, undermining stability and cooperation.	
Impact on Relations	China's economic and strategic influence in the region is significant, and Beijing views AUKUS as a direct challenge to its growing power. Any shift in New Zealand's stance could affect trade relations, regional cooperation, and China's overall geopolitical standing in the region.	

### THE SUBMARINES ON OFFER UNDER AUKUS

TRADITION

Submarine Focus	Details	
Submarine Fleet	Australia will receive eight nuclear-powered attack submarines (SSN-AUKUS), significantly enhancing its naval and undersea capabilities.	
Technology Sharing	Submarines will <b>use a British design but incorporate</b> American combat systems and technology.	
Non-Nuclear Status	While the submarines are nuclear-powered, they will not be armed with nuclear weapons. Australia's commitment to the Nuclear Non-Proliferation Treaty (NPT) ensures compliance with the global non-proliferation framework.	

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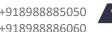
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### **KEY CHALLENGES FOR NEW ZEALAND**

Challenge	Details	
Strategic Pressure	New Zealand faces strategic pressure from both China and its AUKUS partners. Aligning with AUKUS could lead to closer military ties with the U.S., U.K., and Australia but might antagonize China.	
Economic Considerations	<b>China is New Zealand's largest trading partner</b> , and any shift in New Zealand's foreign policy could have significant economic repercussions.	
Regional Security	New Zealand is an important player in the Pacific region and must balance its involvement in regional security with its broader foreign policy goals, including peace and stability.	









## INDIA SUCCESSFULLY TESTS K4 NUCLEAR

## **CAPABLE MISSILE FROM INS ARIGHAAT**



• On November 28, 2024, the Indian Navy successfully tested the K-4 ballistic missile

from its newly inducted nuclear-powered submarine, INS Arighaat.

• The test was conducted in the Bay of Bengal and is considered a significant achievement

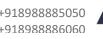
in enhancing India's defense capabilities.

• The K-4 missile, which has a range of 3,500 kilometers, plays a key role in strengthening

India's nuclear deterrence and validating its second-strike capability-the ability to

retaliate with nuclear weapons after being attacked.

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### **IMPORTANCE OF THE TEST**

• Missile Test: The test marks a crucial milestone for India's nuclear triad, which includes

land-based, air-based, and sea-based nuclear strike capabilities.

- The success of the K-4 missile adds to India's ability to respond effectively to a nuclear attack.
- Test Results: According to defense sources, the results of the test are being analyzed thoroughly.
- Briefings will be presented to India's top military and political leadership to evaluate the missile's performance and its implications for national security.

### THE K 4 BALLISTIC MISSILE

• Design and Capabilities: The K-4 missile is designed for launch from underwater

platforms, such as nuclear-powered submarines. It is a key asset in India's defense

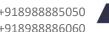
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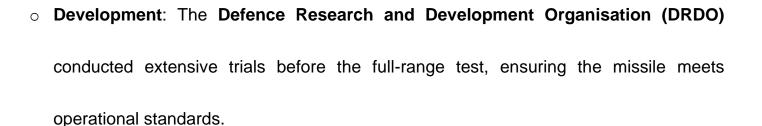
o Range: The missile has a range of 3,500 kilometers, allowing it to strike distant

### targets from underwater.

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• The **successful test** ensures that the **missile is ready for operational use**, contributing to India's strategic nuclear deterrence.

**ABOUT INS ARIGHAAT** 

- Induction: INS Arighaat was commissioned into the Indian Navy in August 2024, marking a major milestone for India's naval defense capabilities. It is based at the Ship Building Centre in Vishakhapatnam.
- Upgraded Capabilities: INS Arighaat is equipped with K-4 missiles, which have a range of over 3,500 km, significantly more than the K-15 missiles fitted on the previous submarine, INS Arihant (which has a range of around 750 km).
- Advanced Technology: INS Arighaat is equipped with more powerful missile systems and advanced technology than its predecessor, INS Arihant.
- This makes INS Arighaat a much stronger and more versatile addition to India's nuclear-

#### powered submarine fleet.

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• Strategic Importance: The submarine's enhanced capabilities provide India with greater

flexibility and strength in its strategic defense posture and nuclear deterrence.

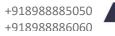
### INDIA'S NUCLEAR SUBMARINE FLEET

- INS Arihant: India's first indigenously built nuclear-powered ballistic missile submarine, INS Arihant, was commissioned in 2018. This was a significant step in enhancing India's nuclear deterrence capabilities.
- Upcoming Submarine: The third vessel in this class is expected to be inducted into the Indian Navy next year, further strengthening India's position as a major nuclear power.

### ROLE OF INS ARIGHAAT IN INDIA'S DEFENCE STRATEGY

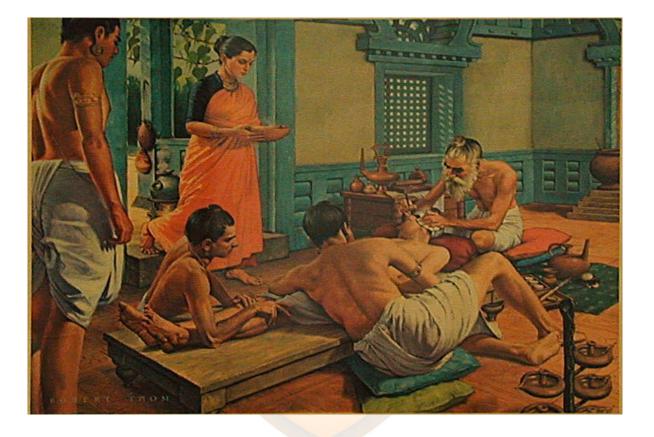
- Defense Minister's Remarks: Rajnath Singh, India's Defense Minister, highlighted that INS Arighaat is a testament to India's technological capabilities and the government's Atma Nirbharta (self-reliance) initiative in defense.
- Strategic Deterrence: The presence of INS Arighaat alongside INS Arihant strengthens
  India's ability to deter potential adversaries and protect its national interests. Both
  submarines enhance India's capability to launch retaliatory nuclear strikes from sea-based
  platforms, which is crucial for ensuring a credible and effective nuclear deterrent.
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## **HEALTHCARE IN INDIA**



Health care in India has evolved over a long period of time, influenced by ancient

traditions, foreign invasions, and modern developments.

### **HEALTHCARE IN ANCIENT PERIOD**

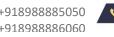
### Indus Valley Civilization (c. 3300–1300 BCE)

· Advanced Knowledge: The Indus Valley Civilization, one of the earliest urban

civilizations, had a high level of medical knowledge.

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practices, suggest that they practiced surgery and had an understanding of human

anatomy.

• Public Health: The people of the Indus Valley built well-planned cities with drainage

systems, which indicates their awareness of sanitation and public health.

### The Vedic Period

- Introduction of Ayurveda: During the Vedic period, the Aryans had knowledge of medicine, which was recorded in the Vedas (sacred texts).
- Among these, the Atharva Veda is particularly important as it includes hymns and prayers that describe treatments for various diseases and ways to prevent harm from

natural disasters.

- The **Ayurveda** system of medicine emerged from these texts.
- o The word "Ayurveda" comes from two Sanskrit words: 'Ayur' meaning life and

'Veda' meaning knowledge.

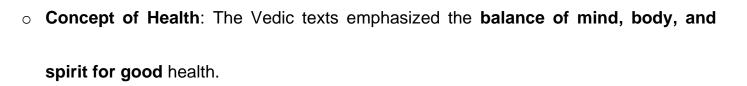
o Thus, Ayurveda is the "science of life," focusing on maintaining health and

treating disease using natural methods.

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### **Key Medical Texts:**

- Charaka Samhita: One of the most important texts of Ayurveda, which deals with internal medicine and discusses how to maintain good health and treat various diseases.
- Sushruta Samhita: Another foundational Ayurvedic text, written by the ancient physician Sushruta, is considered one of the earliest texts on surgery and the

"father of surgery" in India.

#### RADITION

- Sushruta made major contributions to surgery, especially in the fields of plastic surgery and surgical instruments.
- He is credited with pioneering procedures like nose reconstruction (a form of

plastic surgery) and cataract surgery.

He described over 300 surgical instruments used in various operations, making

him one of the earliest surgeons in history.

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### Buddhist Period (563–477 BCE)

- Lord Buddha's Role in Medicine: Lord Buddha himself took a deep interest in the health and well-being of others.
  - Hospitals in Monasteries: Buddha's teachings included caring for the sick, which led

to the creation of Buddhist Viharas (monasteries).

These monasteries were not just centers for meditation but also places where the

sick could be cared for. Medical education was an integral part of these centers.

### King Ashoka and Hospitals (273–232 BCE)

- Emperor Ashoka's Contributions: During the reign of Emperor Ashoka, one of India's greatest rulers, there was a notable effort to establish hospitals and care systems for the people.
  - o Ashoka built hospitals for the sick, especially to care for the poor and the

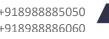
### handicapped.

- These hospitals were among the earliest forms of organized medical care in India.
- o Ashoka's support for health care was significant because it showed a royal

commitment to the welfare of the common people, particularly those who could not

afford treatment.

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The foundation of Indian traditional medicine, Ayurveda, focuses on achieving a balance between the body's three primary energies : Vata, Pitta, and Kapha. Ayurveda uses personalized treatments, including:

- Herbal Remedies: Use of plants and herbs like turmeric, ginger, and neem for medicinal purposes.
- **Panchakarma**: A therapeutic procedure to cleanse the body of toxins and restore balance.
- Diet and Lifestyle: Ayurveda emphasizes a balanced diet, proper sleep, exercise, and meditation for overall well-being.

### **Medicinal Plants and Natural Remedies**

- Ancient Indian medicine extensively used herbal remedies from plants. India's vast biodiversity made it a hub for medicinal plants.
- Famous medicinal plants include Ashwagandha, Aloe Vera, Tulsi (Holy Basil), and

Neem, all of which are still used in modern Ayurvedic treatments.

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## **MCQs**

- 1. Consider the following statements and mark the correct one:
  - 1. AUKUS, signed in 2021, aims to enhance military capabilities of Australia.
  - 2. Under AUKUS, Australia will be receiving Nuclear capable submarines from UK &

USA.

- (A) Only 1
- (B) Only 2
- (C) Both 1 & 2
- (D) Neither 1 nor 2

### Ans. (A)

- 2. Consider the following statements and mark *how many* of them are correct?
  - 1. India does not have a nuclear powered submarine but a nuclear capable submarine.
  - 2. The K4 missiles have a longer range than K15 missiles.
  - 3. The K4 missiles are designed to be launched from underwater.
  - (A) Only 1 statement is correct
  - (B) Only 2 statements are correct
  - (C) All the statements are correct
  - (D) None of the statements are correct.

### Ans. (B)

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- 3. Consider the following statements and mark the correct ones:
  - 1. INS Arihant is a non nuclear capable submarine.
  - 2. INS Arighaat is a nuclear capable submarine.
  - (A) Only 1
  - (B) Only 2
  - (C) Both 1 & 2
  - (D) Neither 1 nor 2

### Ans. (B)

- 4. In which period was Ayurveda introduced?
  - (A) Vedic Period
  - (B) Indus Valley Civilization period
  - (C) Post Vedic Period
  - (D) None of the above
  - Ans. (A)

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- 5. Consider the following statements and mark the correct one:
  - 1. Sushruta is considered as the Father of Surgery in India.
  - 2. Plastic Surgery was possible during Vedic Period in India.
  - 3. The earliest forms of organized medical care in India was witnessed during Buddha.
  - (A) Only 1 & 3
  - (B) Only 1
  - (C) Only 1 & 2
  - (D) All of the above

Ans. (C)

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