



## JALA HOMOEO VISION



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## “Breath of Life: Integrating Respiratory Physiology with the Homoeopathic Concept of Vital Force”



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### INTRODUCTION

Breath is the most fundamental expression of life — the rhythmic exchange that sustains every living cell. In physiology, respiration is the process that maintains oxygen supply and carbon dioxide elimination. In Homoeopathy, the same vital rhythm reflects the dynamic expression of the vital force (Prana or Life Principle) which animates the organism.

This integration bridges the material and dynamic views of life — physiology explaining the mechanism, and Homoeopathy explaining the purpose and harmony behind it.

### Respiratory Physiology: The Material Basis of Life

- **Definition:** Respiration is the process by which oxygen is taken in and carbon dioxide is expelled, essential for cellular metabolism.
- **Mechanisms:**
  - **External Respiration:** Exchange of gases between alveoli and blood.
  - **Internal Respiration:** Exchange of gases between blood and tissues.
  - **Cellular Respiration:** Oxidative metabolism producing energy (ATP).
  - **Control:** The respiratory center in the medulla regulates the rhythm of breathing, responding to  $\text{CO}_2$  and  $\text{O}_2$  levels.
  - **Significance:** Every breath sustains the energy flow necessary for all physiological and psychological processes.

### The Concept of Vital Force in Homoeopathy

- **Dr. Hahnemann's View:** The vital force is an immaterial, dynamic principle that maintains harmony and balance in the organism.
- When it is disturbed, disease manifests as functional derangement even before structural changes appear.
- Health = harmonious flow of the vital force.
- Disease = disturbance or disharmony in this flow.
- Cure = restoration of dynamic equilibrium through a simillimum that resonates with the altered vital energy.

### Breath as the Bridge Between Body and Vital Force

Breath acts as the dynamic bridge linking the material body with the immaterial vital force. It operates simultaneously on two dimensions - physiological and energetic - integrating science and spirituality into one continuous rhythm of life.

On the **physical level**, breathing ensures the vital process of **gas exchange**, delivering oxygen to tissues and removing carbon dioxide. Oxygen is indispensable for **cellular respiration**, driving the **production of ATP**, the biochemical energy currency that powers every physiological activity. Thus, the rhythm of breath sustains the physical foundation of life through energy transformation at the cellular level.



On the **energetic level**, ancient yogic **philosophy** and **homoeopathic principles** view breath as the vehicle of **Prana** or **Vital Force** - the subtle energy that animates all living beings. Each inhalation draws in Prana, revitalizing the body and mind, while exhalation releases stagnation and restores internal balance. The flow of breath mirrors the **vital dynamism** that maintains harmony between the physical, emotional, and mental states of an individual.

From a **homoeopathic perspective**, the **Vital Force** represents the governing principle that maintains health and order within the organism. Breath symbolizes the **constant influx and renewal** of this life energy, ensuring adaptability, resilience, and vitality. Disturbance in the rhythm of breath - whether through stress, emotional imbalance, or disease - reflects a disturbance in the vital force itself.

Thus, breath serves as the **bridge of balance** - connecting physiology with consciousness, matter with energy, and the visible with the invisible. It is through conscious awareness of breath that one may perceive and nurture the harmony of life's physical and dynamic aspects.

### **Disease: A Disturbed Rhythm of Breath and Vitality**

Every disease disturbs the natural rhythm of respiration:

- Fever quickens breath.
- Depression and grief slow it.
- Anxiety makes it shallow.

• The change in breathing pattern reflects the **state of the vital force**. Hence, in case-taking, observing **respiratory changes** (rate, depth, sighing, oppression, etc.) gives insight into the **inner dynamic disturbance**.

### **Therapeutic Integration**

- **Homoeopathic Medicines** act dynamically — not by altering chemical oxygen transport but by restoring balance to the vital force that governs all physiological functions, including respiration.
  - Example: *Arsenicum album* — breathlessness with restlessness (vital unease).
  - *Antimoniumtartaricum* — obstruction in breathing (vital sluggishness).
  - *Aconitum napellus* — sudden dyspnea with panic (vital shock).
- Thus, the remedy restores the **harmonious rhythm** of the breath and life.

### **The Philosophical Integration**

#### **Respiratory Physiology**

Oxygen maintains cellular life

CO<sub>2</sub> removal maintains acid-base balance

Brainstem controls rhythm

Energy (ATP) sustains metabolism

#### **Homoeopathic Vital Force**

Vital force maintains dynamic life

Removal of miasmatic disturbances maintains health

Vital force controls the whole organism's harmony

Vital energy sustains existence and consciousness.

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## Respiratory Tract Infections: Persistent Global Burden, Emerging Vulnerabilities, and Ongoing Challenges-A Narrative review

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### Abstract

Respiratory tract infections (RTIs) remain a leading global cause of morbidity, mortality, and economic loss. Despite advances in diagnostics, therapeutics, and public health interventions, RTIs persist due to complex host-pathogen-environment interactions, rising antimicrobial resistance, demographic shifts, and expanding iatrogenic immunosuppression. This review summarizes current evidence on the global burden of RTIs, environmental and host-related risk factors, pathogen adaptability, and barriers to timely diagnosis and treatment. Future progress requires integrated strategies combining innovation in therapeutics and diagnostics with strengthened surveillance and infection control.

### Introduction

Respiratory tract infections continue to impose a substantial health burden despite modern healthcare advances. Lower respiratory tract infections (LRTIs) were responsible for approximately 2.4 million deaths globally in 2019 and remain a leading cause of mortality in low- and middle-income countries (LMICs)<sup>1</sup>. Concurrently, socioeconomic costs—including hospitalizations, productivity losses, and outbreak management—impose multi-billion-dollar burdens on high-income nations<sup>2</sup>. The persistence and adaptability of respiratory pathogens, alongside increasing populations of vulnerable hosts, underscore the need for ongoing evaluation of contributing factors and opportunities for improved management.

### Methods

This narrative review synthesizes peer-reviewed literature from PubMed-indexed journals (1995–2024) addressing:

1. Global epidemiology and economic burden of RTIs.
2. Environmental and zoonotic contributors to infection risk.
3. Host-related susceptibility factors, including aging, chronic disease, and iatrogenic immunosuppression.
4. Pathogen evolution and antimicrobial resistance.
5. Challenges related to late clinical presentation and diagnostic limitations.

Search terms included respiratory infections, pneumonia, zoonoses, immune senescence, antimicrobial resistance, and hospital-acquired pneumonia. Emphasis was placed on systematic reviews, meta-analyses, and landmark epidemiological studies.

### Results

#### Global Burden and Economic Impact

RTIs are the fourth leading cause of death in high-income settings and the leading cause in LMICs<sup>1</sup>. In the United States, the economic burden of influenza—including direct medical costs and productivity losses—exceeds \$87 billion annually<sup>3</sup>. Global estimates indicate trillions in cumulative economic losses from RTIs, attributable to hospitalizations, long-term complications, and pandemic disruptions<sup>4</sup>.

#### Environmental and Zoonotic Factors

Environmental reservoirs—particularly water systems, soil, and air—house opportunistic respiratory pathogens such as *Legionella pneumophila*, non-tuberculous mycobacteria (NTM), and *Aspergillus* species<sup>5</sup>. Zoonotic agents such as *Chlamydia psittaci*, *Coxiella burnetii*, and avian influenza viruses continue to cause sporadic outbreaks, particularly in regions with high animal-human contact<sup>6</sup>. Human-to-human transmission remains the most significant driver of

epidemic spread, exemplified by the SARS outbreak, where mask use and isolation significantly reduced transmission<sup>7</sup>.

### **Expanding Populations of Vulnerable Hosts**

#### **Aging Population**

Older adults experience immune senescence, including diminished T-cell function and impaired phagocytosis, increasing susceptibility to severe pneumonia and sepsis<sup>8</sup>. Long-term care facilities are frequent sites of outbreaks involving influenza, RSV, and bacterial pathogens<sup>9</sup>.

#### **Chronic Disease**

Chronic cardiac, renal, and metabolic diseases significantly elevate RTI severity and mortality risks. Meta-analyses show reduced vaccine effectiveness in these populations, particularly against influenza<sup>11</sup>.

#### **Iatrogenic Immunosuppression**

The expanding use of biologic immunomodulators—including TNF inhibitors, IL-6 antagonists, and B-cell-depleting agents—has increased susceptibility to opportunistic infections and reactivation of latent tuberculosis<sup>11</sup>. Inhaled corticosteroids for COPD modestly increase pneumonia incidence<sup>12</sup>.

#### **Late Presentation and Diagnostic Limitations**

Delayed clinical presentation worsens outcomes in community-acquired pneumonia (CAP). Up to 40% of adults present after  $\geq 48$  hours of symptom onset due to social isolation, rapid disease progression, or financial barriers<sup>13</sup>. Nosocomial and ventilator-associated pneumonia (VAP) frequently suffer from delayed detection due to nonspecific early signs and limitations of culture-based diagnostics<sup>14</sup>. Novel biomarkers and syndromic molecular panels improve detection but remain limited by cost and availability<sup>15</sup>.

#### **Pathogen Adaptation and Antimicrobial Resistance**

*Mycobacterium tuberculosis* continues to evade immune clearance, while viruses—including cytomegalovirus and certain coronaviruses—produce IL-10 homologues that suppress host immunity<sup>16</sup>. Antimicrobial resistance (AMR) threatens treatment success, with rising rates of multidrug-resistant (MDR) *Pseudomonas aeruginosa*, carbapenem-resistant *Enterobacterales*, and extensively drug-resistant (XDR) tuberculosis<sup>17</sup>. Influenza demonstrates continual antigenic drift and episodic shift, necessitating annual vaccine updates and raising pandemic potential<sup>18</sup>. Vaccination pressures have contributed to serotype replacement in pneumococcal disease following PCV introduction<sup>19</sup>.

#### **Discussion**

RTIs persist due to the convergence of environmental exposure, adaptable pathogens, and a growing population of vulnerable individuals. Aging demographics, chronic comorbidities, and widespread immunosuppressive therapies significantly expand host susceptibility. Meanwhile, AMR and viral evolution challenge existing treatments, while ecological shifts following pathogen suppression promote the emergence of new dominant strains. Addressing these challenges requires a multifaceted strategy: improving rapid diagnostics to reduce delays in treatment, advancing antimicrobial stewardship to counter resistance, strengthening infection-control frameworks, and enhancing global surveillance systems. Future therapies—including host-directed immunomodulation and broadly protective vaccines—hold promise but require coordinated research investment.

#### **Conclusion**

Respiratory tract infections remain a persistent and evolving threat to global health. Their burden reflects intertwined biological, environmental, and societal factors that cannot be mitigated by therapeutics alone. Sustained progress will depend on integrating innovative diagnostics, updated vaccines, robust infection-control measures, and strengthened global public health cooperation.

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## "Pharmacological action of Homoeopathic Medicine related, top five Homoeopathic Medicine for Vaccination in pneumonia"

### ABSTRACT :

Pneumonia remains a significant cause of morbidity and mortality worldwide. Homoeopathy offers preventive and supportive treatment options through potentised medicines that act on the immune system. Recent advances in homoeopathic pharmacy, especially the concept of "Homoeopathic prophylaxis" or "Homoeo-vaccination," have been explored as adjuncts to conventional prevention. This article discusses the pharmacological action and preventive role of the top five homoeopathic medicines used in pneumonia prophylaxis: Pneumococcinum, Bacillinum, Antimoniumtartaricum, Bryonia alba, and Phosphorus.



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### Introduction

Pneumonia is an acute infection of the alveoli and lung parenchyma caused by bacteria, viruses, or fungi. Conventional vaccination has significantly reduced pneumonia incidence, yet homoeopathic approaches continue to be researched for their preventive and supportive roles. Homoeopathic medicines, prepared through serial dilution and potentization, aim to stimulate the body's vital force and enhance resistance to disease. Modern homoeopathic pharmacy integrates both pharmacognosy and immunological perspectives to understand these medicines' actions.

### Pharmacological Basis of Homoeopathic Vaccination

Homoeopathic prophylaxis, also known as "isopathic vaccination," involves the administration of potentized preparations derived from pathological products, microorganisms, or disease agents. These medicines act by stimulating the organism's defense mechanisms and improving immune responsiveness. The process is believed to involve the activation of humoral and cellular immunity through the dynamic energy of the potentized remedy.

### Top Five Homoeopathic Medicines in Pneumonia Prophylaxis

#### 1. Pneumococcinum

**Source:** Derived from cultures of *Streptococcus pneumoniae*.

**Pharmacological Action:** Acts as a nosode stimulating immune response against pneumococcal infections. It enhances the body's defensive mechanisms against bacterial invasion.

**Clinical Role:** Used as a prophylactic and intercurrent remedy in recurrent pneumonia or bronchitis.

**Recent Advances:** Nano-pharmacological studies suggest that potentized nosodes may influence cytokine signaling and macrophage activation.

**Potency Used:** 200C or 1M, once weekly during epidemic conditions.

#### 2. Bacillinum

**Source:** Derived from tuberculous lung tissue.

**Pharmacological Action:** Stimulates the immune system, particularly macrophage and lymphocyte activity. Acts on the respiratory mucosa to reduce susceptibility to infection.

**Clinical Role:** Indicated in individuals with chronic chest catarrh, susceptibility to colds, and post-pneumonic weakness.

**Recent Advances:** Research suggests its use as a constitutional prophylactic where tubercular diathesis predisposes to pneumonia.

#### 3. AntimoniumTartaricum

**Source:** Tartar emetic (antimony potassium tartrate).

**Pharmacological Action:** Acts on the mucous membranes of the respiratory tract, facilitating expectoration and improving alveolar oxygen exchange.

**Clinical Role:** Useful in pneumonia with excessive mucus accumulation and weak respiration.

**Recent Advances:** Nano-form studies indicate modulation of oxidative stress and cytokine balance in respiratory inflammation.

#### 4. Bryonia Alba

**Source:** Extract of the root of *Bryonia alba* (white bryony).

**Pharmacological Action:** Acts primarily on serous membranes and lungs, reducing inflammation and pleural effusion.

**Clinical Role:** Effective in early stages of pneumonia with dry cough, pain on motion, and pleuritic involvement.

**Recent Advances:** In vitro studies show potential anti-inflammatory activity due to its glycoside content before potentiation.

#### 5. Phosphorus

**Source:** Elemental phosphorus.

**Pharmacological Action:** Acts on the mucosa of the respiratory and circulatory systems, improving oxygenation and tissue repair.

**Clinical Role:** Indicated in later stages of pneumonia with hemoptysis, rapid pulse, and exhaustion.

**Recent Advances:** Homoeopathic phosphorus has shown immunomodulatory properties in laboratory assays, improving macrophage activity.

#### Discussion

Homoeopathic prophylaxis for pneumonia is not a replacement for conventional vaccination but serves as an adjunctive measure. The pharmacological action of these remedies lies in their dynamic influence on immune reactivity and tissue response. Modern research in homoeopathic Nano-pharmacology supports the hypothesis that even ultra-high dilutions retain source material information that can modulate biological activity. Further clinical trials and molecular-level studies are warranted.

#### Conclusion

Homoeopathic medicines like *Pneumococcinum*, *Bacillinum*, *Antimoniumtartaricum*, *Bryonia alba*, and *Phosphorus* exhibit pharmacological actions that support the immune system and respiratory function. Their role in homoeopathic vaccination or prophylaxis against pneumonia is a promising area integrating classical homoeopathy with contemporary pharmacological science.

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## The Asthmatic Wanderer's Song

In the hush of a half-lit evening,  
When the lungs cry out for air,  
Walks the wanderer of asthma's path—  
Each remedy whispering care.

Ambra grisea sighs first in line,  
A fluttering heart, a left-side weight,  
Cough breaks open a gust of wind,  
From stomach's door—its airy fate.

Then Aralia racemosa comes,  
With wheezy pipes in music strained,  
The patient sits to catch a breath,  
Till warm, salt expectoration drains.

Bold Aspidiosperma steps ahead,  
"The Digitalis of the lungs," they say,  
For cardiac asthma's tightening grip,  
It clears the chest like breaking day.

Beside the sea walks Bromine pale,  
Where waves breathe cool but he breathes less,  
As though no air can fill the chest,  
Sea-shore asthma in distress.

Through dusky lanes crawls Blattaorientalis,  
The roach-remedy clearing clogs,  
For bronchitic asthma thick and harsh,  
Stagnant air in heavy fogs.

Wild Mepitis drifts with midnight's scent,  
For drunkards' asthma, trembling, faint,  
And also those consumptive chests  
Where breath departs without complaint.



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Dark Pothosfoetida prowls in dust,  
Where tickling motes make lungs recoil;  
Asthma eased after passing stool,  
The "Miller's asthma" of field and toil.

Last comes Yerba Santa, sage and sweet,  
With catarrhal tubes grown stiff and tight,  
Thickened walls, oppressed deep breaths—  
Yet she holds a candle in the night.

And so they march, this healing band,  
Through wheeze and gasp, through night and day;  
A poem of breath for students' minds—  
To guide their learning on the way.

## Wheezing Associated Lower Respiratory Tract Infection and Its Homoeopathic Management

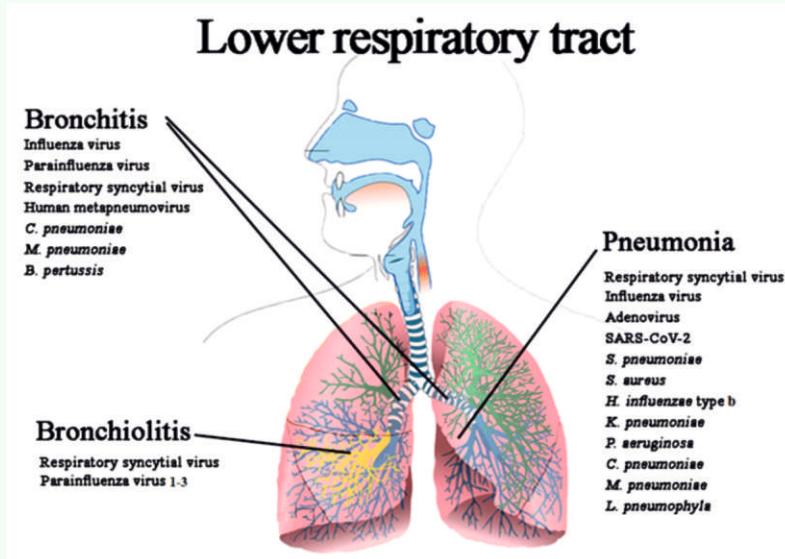


### ABSTRACT :

Wheezing Associated Lower Respiratory Tract Infection (WALRTI) is a frequent condition in paediatric practice, often caused by viral infections leading to airway inflammation and obstruction. It manifests with cough, dyspnoea, and expiratory wheezing. Conventional management focuses on supportive therapy, while homeopathy offers individualized remedies aimed at relieving acute symptoms and preventing recurrence. This article reviews the etiology, clinical presentation, and homeopathic management of WALRTI with an integrative perspective.

### Introduction

Wheezing Associated Lower Respiratory Tract Infection (LRTI) represents one of the most common respiratory conditions in infants and young children, typically following a viral upper respiratory infection. The condition is characterized by expiratory wheezing resulting from inflammation and narrowing of the small airways. Early identification and prompt treatment are vital to prevent respiratory distress and long-term sequelae.



### Etiology

The majority of cases are viral in origin. The principal causative agents include:

- Respiratory Syncytial Virus (RSV)
- Rhinovirus
- Para influenza and Influenza viruses
- Adenovirus
- Human Metapneumovirus

### Pathophysiology

Viral infection induces inflammation and oedema of bronchiolar epithelium, leading to airway narrowing and mucus plugging. The smaller airway diameter in children results in significant resistance to airflow, causing wheeze and air trapping (4). Mucosal damage, epithelial sloughing, and smooth muscle constriction further exacerbate airway obstruction.

### Clinical Features

Common symptoms include:

- Cough (initially dry, later productive)
- Wheezing and dyspnoea
- Fever (mild to moderate)
- Tachypnoea and chest retractions
- Feeding difficulty in infants

## Diagnosis

Diagnosis is primarily clinical.

Investigations (if required) include:

**Chest X-ray:** Hyperinflation, peribronchial cuffing.

**Pulse oximetry:** To assess oxygen saturation.

**Viral antigen or PCR tests:** For research or epidemiological purposes.

Differential diagnoses include asthma, pneumonia, foreign body aspiration, and congenital airway anomalies.

## Homoeopathic Management

### Remedy

**1. Antimoniumtartaricum Indications:** Rattling of mucus in the chest with little expectoration, suffocative cough, drowsiness, and cyanosis. "Much rattling, but little comes up."

Modalities: Worse on lying down, better when sitting up or being carried.

**2. Ipecacuanha Indications:** Constant cough with gagging and vomiting, wheezing, and suffocation, especially in children. Chest full of mucus with incessant cough, but expectoration is scanty.

Modalities: Worse from motion and warm humid weather.

**3. Arsenicum album Indications:** Wheezing with anxiety, restlessness, and exhaustion; attacks often occur at midnight. Dyspnoea with burning in the chest and thirst for small quantities of water.

Modalities: Worse after midnight, from cold air; better by sitting upright and warmth.

**4. Spongiatosta Indications:** Dry, barking, "sawing" cough with wheezing sound, especially before sleep. Sensation as if the larynx were dry and burning. Modalities: Better by eating or drinking warm things.

**5. Bryonia alba Indications:** Dry, painful cough with chest soreness and desire to remain still. Irritable patient who dislikes motion. Modalities: Worse by movement, better by lying on painful side and from rest.

### 6. Phosphorus

- Indications: Wheezing and tightness in the chest with burning, dry cough; tendency to recurrent bronchitis.
- Keynote : Craving for cold drinks, which are vomited when warm in stomach.
- Modalities: Worse from cold air, talking, laughing; better from cold drinks for short time.

### 3. General Measures.

- Maintain a warm, dust-free environment.
- Encourage adequate hydration.
- Avoid exposure to smoke, allergens, and pollutants.

Steam inhalation and gentle chest percussion may aid mucus clearance.

- In severe respiratory distress, emergency medical attention is essential; homeopathy should complement, not replace, critical care.

## Prognosis

The prognosis is generally favourable. Most children recover within 7–10 days. However, those with atopic backgrounds or early-life viral wheezing are at higher risk of developing asthma later (11).

## Conclusion

Wheezing Associated LRTI remains a significant cause of morbidity in children. While conventional therapy focuses on symptomatic relief, homeopathy provides an individualized and holistic approach targeting both acute symptoms and the child's predisposition. Integrating homeopathic and supportive care under medical supervision can enhance recovery and reduce recurrence.

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**MNEUMONIC****Branches Of The Respiratory Tract**

- Loving People Talk Big Before Avoiding Air - Nasal cavity,  
Larynx, Pharynx, Trachea, Bronchi, Bronchioles, Alveolar ducts, Alveoli  
Lung volumes and capacities -

**Tired Individuals Rest Very Rarely To Love Coffee -**

Tidal Volume, Inspiratory Reserve Volume, Expiratory Reserve Volume, Residual Volume,  
Total Lung Capacity

## Emerging Technological Innovations in Pulmonology: Advances and Applications

Pulmonology, the medical specialty focused on diseases of the lungs and respiratory tract, has witnessed rapid technological progress in recent years. With pulmonary disorders becoming increasingly prevalent and often life-threatening, innovations in artificial intelligence (AI), imaging, rehabilitation, and organ preservation have significantly expanded diagnostic and therapeutic capabilities. This article summarizes key technological developments shaping modern pulmonology. - Feeding difficulty in infants



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### Artificial Intelligence in Pulmonary Imaging and Diagnostics

AI has become a transformative tool in thoracic imaging. High-resolution computed tomography (HRCT) enhanced by AI algorithms can classify fibrotic lung diseases with accuracy comparable to expert radiologists<sup>1</sup>. AI integration in low-dose CT (LDCT) lung cancer screening—recommended in the United States for high-risk individuals—has improved nodule detection and risk stratification<sup>2</sup>.

During the SARS-CoV-2 pandemic, chest CT was widely used due to its high sensitivity for lung abnormalities, though its specificity remained limited. AI-assisted CT analysis has demonstrated an improved ability to differentiate COVID-19 pneumonia from other infectious or inflammatory conditions<sup>3</sup>. Such systems support radiologists in reducing false-positive diagnoses, particularly in patients with pre-existing lung disease. Beyond imaging, AI is emerging in pulmonary cytopathology. A recent study demonstrated that an open-source convolutional neural network could classify on-site cytology smears obtained during endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) with high diagnostic performance<sup>4</sup>. This technology has the potential to aid bronchoscopists in confirming adequate sampling and predicting histologic diagnoses during procedures.

### Pulmonary Rehabilitation and Home-Based Monitoring

Pulmonary rehabilitation (PR) is a cornerstone in the management of chronic obstructive pulmonary disease (COPD), improving quality of life, exercise tolerance, and symptom control. However, patients—particularly in the United Kingdom—face environmental and accessibility challenges that limit participation<sup>5</sup>.

To address these barriers, sensor-based home PR systems have been developed. These devices monitor physical activity, provide real-time feedback, and support long-term adherence to rehabilitation programmes. Early studies demonstrate improved exercise engagement and functional outcomes when patients can perform PR safely and consistently at home<sup>6</sup>.

### Vibration Response Imaging (VRI)

Vibration response imaging is a novel, computer-aided diagnostic method designed to modernize the traditional stethoscope. VRI captures physiological vibrations generated during breathing via sensors placed on the patient's back, translating them into dynamic images that reflect regional lung airflow patterns. This non-invasive approach enhances assessment of ventilation distribution and may support diagnosis in conditions such as pneumonia, COPD, and airway obstructions.

### Ex Vivo Lung Perfusion (EVLP)

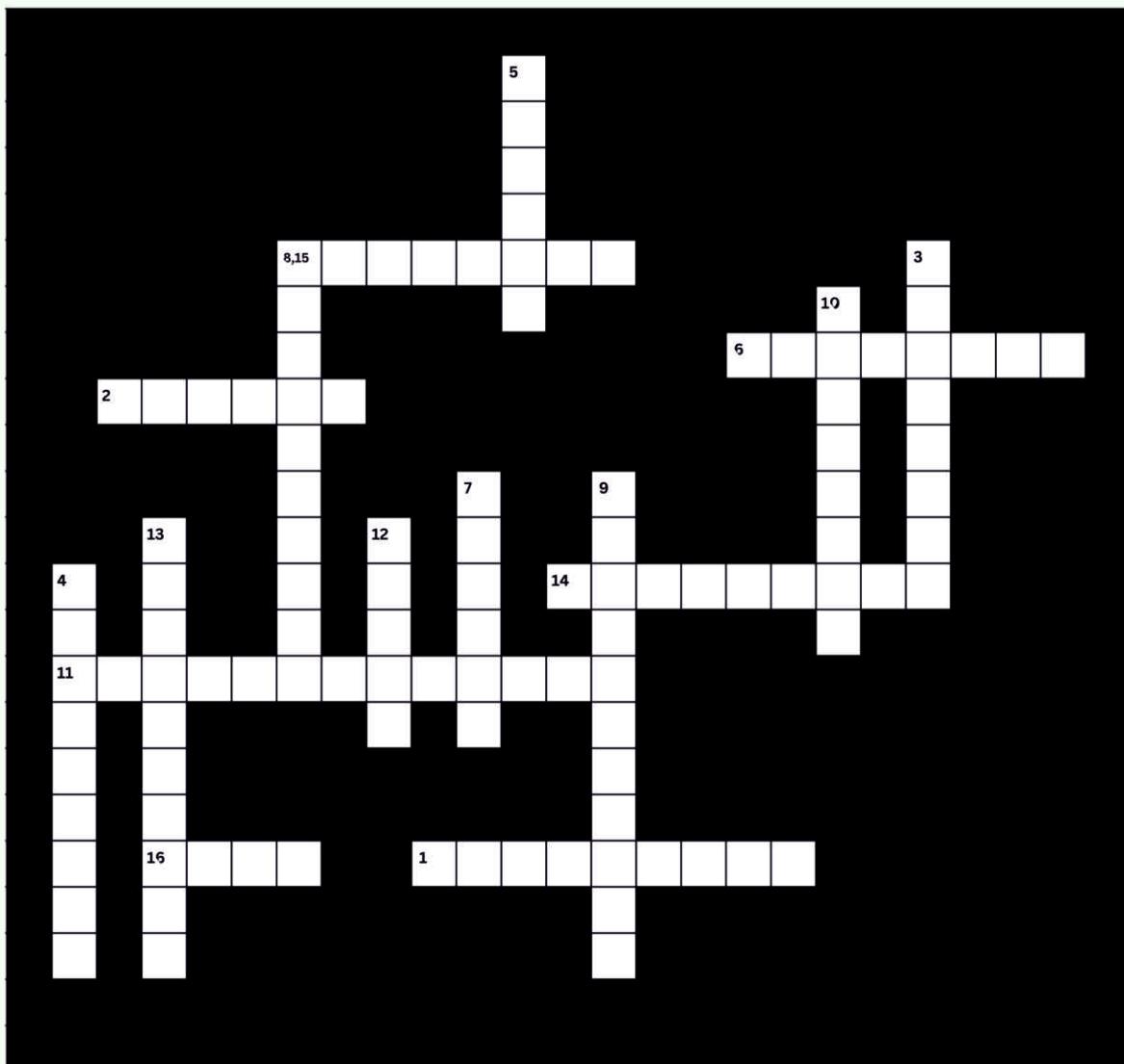
Ex vivo lung perfusion is an advanced organ preservation technique allowing donor lungs to be maintained outside the body while sustaining aerobic metabolism. Using normothermic perfusion and mechanical ventilation, EVLP supplies oxygen and nutrients to the lung tissue and enables functional assessment prior to transplantations. This method can preserve lungs for up to 17 hours, increasing the viability of marginal donor organs and expanding the lung transplant pool<sup>9</sup>.

## Conclusion

Technological innovations—including AI-assisted imaging, home-based pulmonary rehabilitation tools, vibration response imaging, and ex vivo lung perfusion—represent significant advances in pulmonology. While AI can process complex datasets and enhance diagnostic precision, the human expertise and clinical judgement of physicians remain indispensable. Integrating these innovations with patient-centred care will be essential for optimizing outcomes in respiratory medicine.

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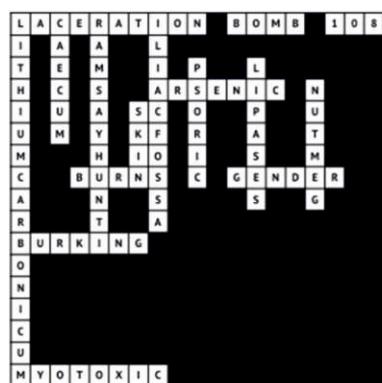
## CROSSWORD QUESTIONS

### ACROSS

1. Largest branch of femoral Nerve
2. Carpal tunnel syndrome involves which nerve
3. Medicine prepared from fresh gall of Ox
4. Who told, "The dose makes it a poison or a remedy"
5. Where dried stigma or flower is used
6. Conversion of carotenes to vitamin A is facilitated by
7. Straight potency introduced by

### DOWN

8. Laceration
9. Arsenic
10. Bomb
11. Burns
12. Gender
13. Barking
14. Ossify
15. Hormones
16. Nerve
17. White matter contains greater concentration of
18. The decrease in O<sub>2</sub> affinity of Hb when the pH of blood falls is called
19. Venom can be preserved in deep freeze in
20. Connective tissue of nervous system are which cells
21. Fear of eating because of subsequent abdominal discomfort.
22. Organ has endocrine & exocrine function



Crossword Answer Key

## JALA HOMOEQUIZ

### IDENTIFY THE FOLLOWING:

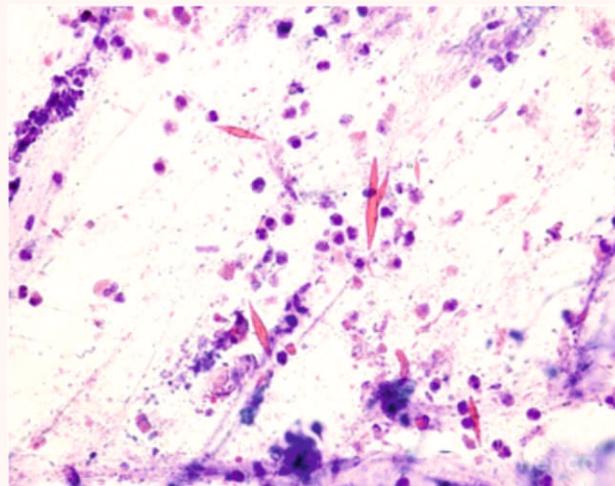
#### 1. Identify the plant name-

- a) Robinia
- b) Cherry laurel
- c) Unicorn root
- d) Pleurisy root



#### 2. Identify the pathologic condition in sputum

- a) Calcium oxalate
- b) Haematoidin crystals
- c) Curschmann spirals
- d) Charcoatlaiden crystals



#### 3. Which medicine has the following symptom voice deep hoarse like trumpet "basso profundo"

- a) Spongia
- b) Verbascum
- c) Sticta
- d) Narcissus

## 29-9-2025 WORLD HEART DAY



## OLD AGE HOME VISIT BHMS III & IV YEAR 30-9-2025



## 7-10-2025 DR MUNIR AHMAD EXPERT LECTURE



**06- TO 14-11-2025 Foundation programme for BHMS I yr fresher****10-11-2025 World Mental Health day****15-11-2025 expert lecture by Dr Jitesh Chosaliya and team**

## DIWALI CELEBRATION 16-10-2025



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