Role Of Homoeopathy in Management of Acute Bronchitis in Pediatric Age Group Assessed by Bronchitis Severity Score (BSS): A Case Series

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***Abstract*—Background: Acute bronchitis is a self-limiting inflammation of the bronchial tree, most often caused by viral infection, and is one of the commonest reasons for children to be brought to outpatient clinics, especially during seasonal change and cold weather. The illness is marked by cough, which may be dry or productive, with low-grade fever, throat discomfort, weakness and scattered rhonchi on auscultation. Although it usually resolves within one to three weeks, the cough disturbs sleep, feeding, play and school attendance and causes considerable worry to parents. Antibiotics are not indicated in uncomplicated cases, so management is mainly supportive, with fluids, rest and symptom relief. Because of this, many families look for gentle and individualized options. Homoeopathy treats each patient on the totality of symptoms, including mental generals, physical generals and characteristic particulars of the cough, and is commonly sought for acute respiratory complaints of childhood. However, reports of paediatric acute bronchitis managed homeopathically that use a standard severity scale are scarce. The Bronchitis Severity Score (BSS) rates cough, sputum, rales on auscultation, chest pain on coughing and dyspnoea, each from 0 to 4, and offers a simple and reproducible way to follow severity from baseline to recovery. This case series presents three children with acute bronchitis managed with individualized homoeopathic medicines and assessed with the BSS.**

***Index Terms*—Acute bronchitis; Homoeopathy; Paediatric; Bronchitis Severity Score; Case series; Totality of symptoms; Repertorization**

I. INTRODUCTION

Acute bronchitis is an acute, self-limiting inflammation of the large airways, presenting with cough, with or without sputum, that lasts up to about three weeks [1,2]. It is mostly viral in origin (influenza, parainfluenza, respiratory syncytial virus, adenovirus, rhinovirus and coronavirus), while bacterial causes are uncommon [2,3]. Children are affected frequently, especially during seasonal change and cold weather.

The diagnosis is clinical. Typical findings are cough, low-grade fever, throat discomfort and scattered rhonchi or coarse crepitations on auscultation, without signs of pneumonia [1,3]. Current evidence does not support routine antibiotics in uncomplicated acute bronchitis [4]. Management therefore aims at symptom relief, hydration and rest, and many caregivers look to complementary systems of medicine for this.

Homoeopathy rests on the principle of *similia similibus curentur* and on individualization, in which the medicine is chosen on the totality of symptoms, including mental generals, physical generals and characteristic particulars [5]. Randomized evidence on individualized homoeopathy is mixed and its interpretation remains debated [6]. Case series that use validated outcome measures and transparent reporting are useful for generating hypotheses.

The Bronchitis Severity Score (BSS), introduced by Matthys and colleagues, is widely used in clinical trials of acute bronchitis, including trials in children and adolescents [7,8].
It rates five items (cough, sputum, rales or rhonchi on auscultation, chest pain during coughing and

dyspnoea) from 0 (absent) to 4 (very severe), giving a total of 0 to 20; a lower total means milder disease.
This case series reports three children with acute bronchitis managed with individualized homoeopathic medicines and assessed with the BSS, with the aim of describing the prescribing totality in each case and the change in severity from baseline to final follow-up.

II. CASE SERIES

Case 1
Patient information: XYZ, 12-year-old male child, Hindu, student of standard 7, from Mehsana. First visit: 07/10/2025.

Chief complaints: Dry irritating cough with difficulty in breathing during coughing and soreness of throat for 3 days, with mild fever, weakness and headache. Cough was worse by rest, lying down and cold air, and better by motion and open air.

History of present illness: The child was well until three days earlier, when symptoms began after exposure to cold weather. A dry cough appeared first, followed by mild fever with chill. There was no expectoration. The child was anxious and restless during the illness and sleep was disturbed by coughing.

Generals and mentals: Appetite decreased; thirst 6 to 7 glasses per day; perspiration mild to moderate; desire for sweets; urine 5 to 6 times per day; stool once daily; thermal reaction chilly. Mentals: anxiety, irritability and restlessness.

Past, family and development history: Fully immunized as per the national schedule; no major illness; milestones normal; normal vaginal delivery. Maternal grandfather had hypertension.

Examination: Ill-looking, moderately built, with coughing and mild respiratory distress during consultation.

Temperature 100 °F, pulse 104/min, respiratory rate 26/min, SpO_2 98%, BP 90/60 mmHg. Bilateral air entry present with mild bilateral rhonchi. Mild pharyngeal congestion.
Diagnosis: Acute bronchitis.

Totality of symptoms (Case 1)

Symptom	Classification	Evaluation	Rubric (Murphy's repertory)
Anxiety during illness	Uncommon, mental general	+++	[Mind] Anxiety, general
Aggravated by cold air	Uncommon, physical general	+++	[Generals] Air, cold air, agg.
Ameliorated by motion	Uncommon, physical general	++++	[Generals] Motion, amel.
Aggravated by rest	Uncommon, physical general	+++	[Generals] Rest, agg.
Dry cough during chill	Uncommon, physical particular	++	[Cough] Dry cough during chill
Dry cough	Uncommon, physical particular	+	[Cough] Dry cough

Repertorial analysis: Rhus toxicodendron 16/6, Ferrum phosphoricum 14/6, Arsenicum album 14/5.

Prescription: *Rhus toxicodendron* 30C twice daily for 3 days, then SL twice daily for 7 days, with auxiliary management.

Follow-up: On 14/10/2025 the dry cough had markedly decreased; fever and chill were absent and mild weakness remained (SL twice daily for 3 days). On 18/10/2025 there was marked relief of cough, no fever or chill and better general condition (SL twice daily for 7 days). BSS: 8 at baseline, 2 at final follow-up.

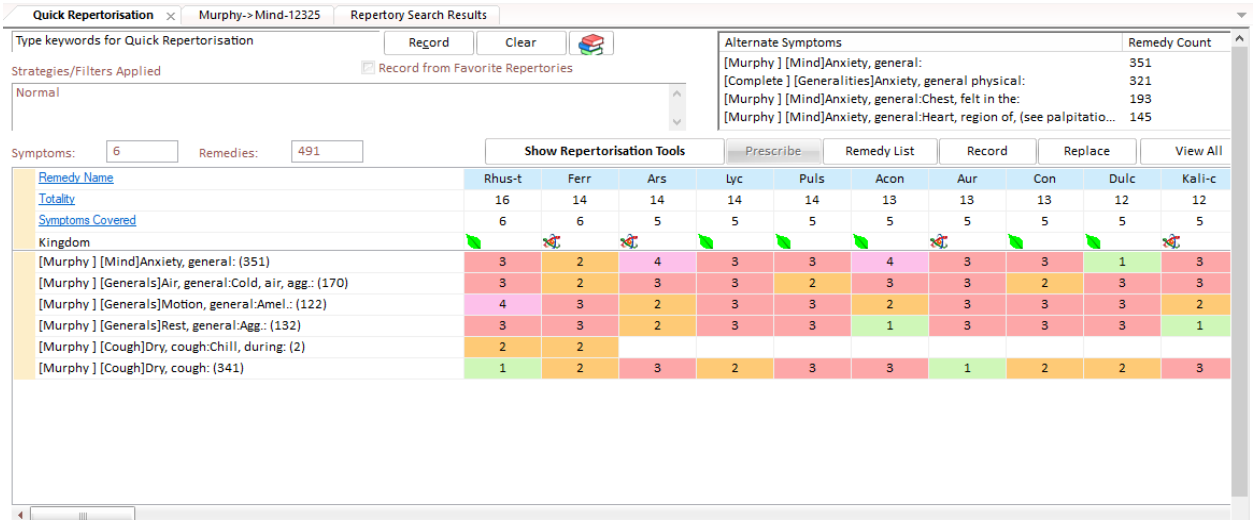


Figure 1. Repertorization chart, Case 1

Case 2

Patient information: XYZ, 8-year-old male child, Hindu, student of standard 3, from Mehsana. First visit: 07/10/2025.

Chief complaints: Dry, croupy cough with little expectoration and burning pain in the chest during coughing for 3 days, with mild fever, fatigue, weakness, irritability, restlessness and headache. Cough was worse after midnight and better by warm drinks, warmth and warm covering.

History of present illness: The cough began as a dry hacking cough and gradually became severe, especially after midnight, with a burning sensation in the chest. The child was restless and wanted frequent sips of warm water. Sleep was disturbed. The cause was presumed viral infection.

Generals and mentals: Appetite reduced; thirst frequent for small quantities at short intervals; desire for warm drinks and aversion to cold drinks; perspiration moderate; urine 6 to 7 times per day; stool once daily; thermal reaction chilly. Mentals: restlessness, anxiety during illness and irritability due to continuous cough. The child changed position frequently and wanted parents nearby.

Past, family and development history: Fully immunized; no major illness; milestones normal; normal vaginal delivery. Father and maternal grandfather had hypertension.

Examination: Temperature 100.4 °F, pulse 104/min, respiratory rate 26/min, SpO_2 98%, BP 100/60 mmHg. Dry croupy cough, equal air entry bilaterally, scattered rhonchi, mildly prolonged expiration, no crepitations. Mild throat congestion; no tonsillar enlargement or cervical lymphadenopathy. Diagnosis: Acute bronchitis.

Totality of symptoms (Case 2)

Symptom	Classification	Evaluation	Rubric (Murphy's repertory)
Restlessness	Common, mental general	++++	[Mind] Restlessness
Ameliorated by warmth	Uncommon, physical general	+++	[Generalities] Warmth ameliorates
Thirst for small quantities, often	Uncommon, physical general	+++	[Food] Thirst; small quantities; often
Burning pain in chest during cough	Uncommon, physical particular	++	[Chest] Burning pain during coughing
Cough after midnight	Uncommon, physical particular	+	[Cough] Night; midnight
Croupy cough after midnight	Uncommon, physical particular	++	[Cough] Croupy; after midnight

Repertorial analysis: Arsenicum album 15/6, Sulphur 11/5, Rhus toxicodendron 10/4.

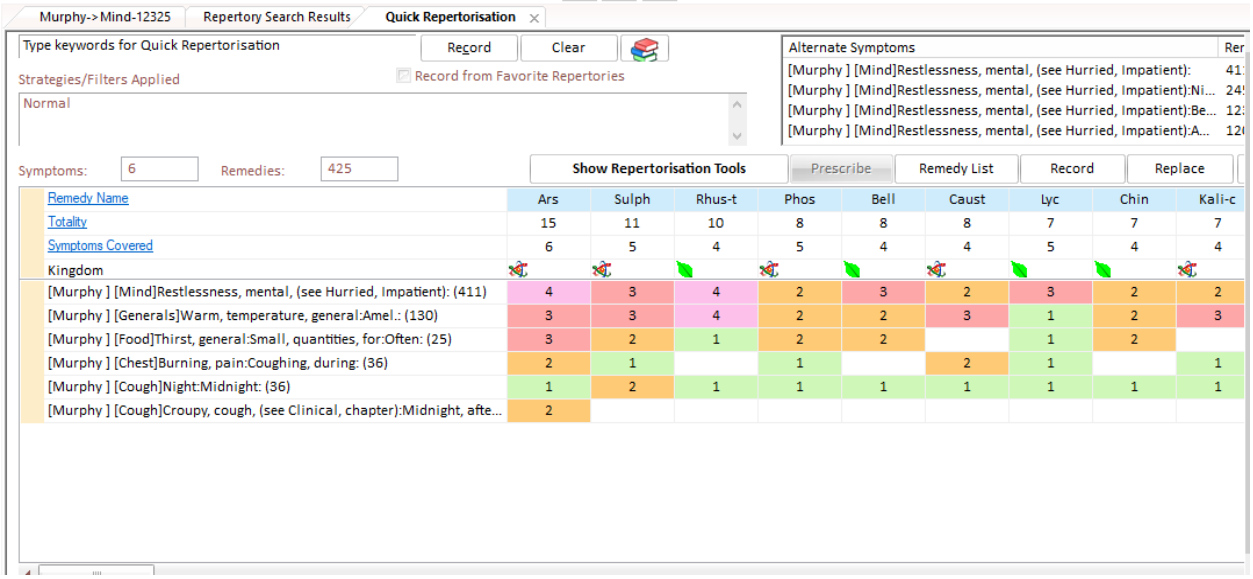


Figure 2. Repertorization chart, Case 2

Prescription: *Arsenicum album* 30C twice daily for 7 days, with auxiliary management (warm fluids, steam inhalation, warm clothing, avoidance of cold drinks and ice cream, light diet and rest).

Follow-up: On 13/10/2025 the patient felt better, cough was slightly reduced, sleep improved, restlessness decreased and burning in the chest was absent (SL twice daily for 3 days). On 16/10/2025 cough was markedly reduced (SL twice daily for 7 days).
On 25/10/2025 cough was minimal and occasional without expectoration, burning pain had subsided, there was no dyspnoea or restlessness and sleep was undisturbed (SL twice daily for 3 days). BSS: 10 at baseline, 2 at final follow-up.

Case 3
Patient information: XYZ, 10-year-old male child, Hindu, student of standard 7, from Mehsana. First visit: 07/10/2025.

Chief complaints: Rattling, loose cough with chest heaviness, little expectoration, and difficulty in breathing with irritation during coughing, for 3 days, with weakness. Complaints were better in open air and worse by warm temperature, warm room and wet weather.

History of present illness: The child was well three days earlier, when rattling cough with bodily weakness began.

The cough was loose with scanty expectoration, with chest heaviness and breathing difficulty during coughing. Sleep was disturbed. The cause was presumed viral infection.

Generals and mentals: Appetite satisfactory; thirst 6 to 7 glasses per day; perspiration mild to moderate; desire for chocolate and spicy food; urine 6 to 7 times per day; stool 1 to 2 times per day; thermal reaction recorded as chilly. Mentals: fear of being alone, irritability and restlessness.

Past, family and development history: Fully immunized; no major illness; milestones normal. No relevant family history.

Examination: Temperature 100 °F, pulse 104/min, respiratory rate 24/min, SpO_2 98%, BP 90/60 mmHg. Bilateral air entry with mild bilateral rhonchi; other systems normal.
Mild nasal congestion; no tonsillar enlargement. Diagnosis: Acute bronchitis.

Totality of symptoms (Case 3)

Symptom	Classification	Evaluation	Rubric (Murphy's repertory)
Fear of being alone	Uncommon, mental general	+++	[Mind] Fears, phobias, general, alone, of being
Desire for open air	Uncommon, physical general	+++	[Generals] Air, open air, outside, desire for
Aggravated by warm temperature and wet weather	Uncommon, physical general (modality)	+	[Generals] Warm, temperature, general, wet weather, agg.
Rattling cough	Uncommon, physical particular	++	[Cough] Rattling cough
Loose cough	Uncommon, physical particular	+++	[Cough] Loose cough

Repertorial analysis: Pulsatilla 12/5, Carbo vegetabilis 11/5, Sepia 11/5.

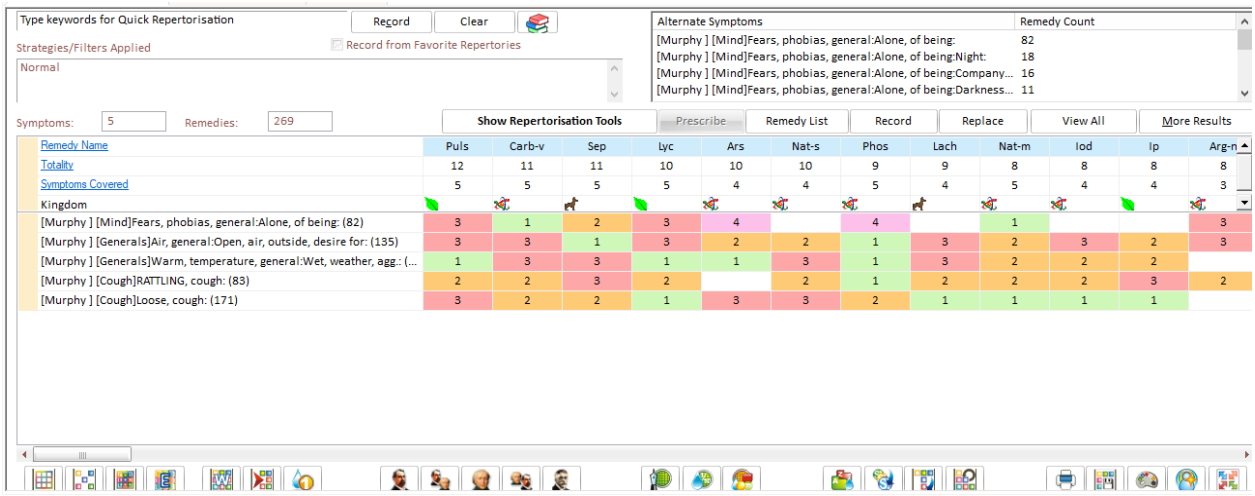


Figure 3. Repertorization chart, Case 3

Prescription: *Pulsatilla* 30C once daily for 2 days, then SL twice daily for 7 days, with auxiliary management (rest, avoidance of cold, dust and smoke, nutritious diet, warm fluids and steam inhalation).

Follow-up: On 14/10/2025 rattling cough was less frequent but present, weakness reduced, the child was less restless and appetite was improving (SL twice daily for 3 days). On 17/10/2025 rattling and loose cough were markedly reduced with less expectoration; rhonchi had resolved and general condition improved (SL twice daily for 7 days).

On 25/10/2025 there was no rattling or loose cough, expectoration had stopped and the child felt better overall (SL twice daily for 5 days). BSS: 10 at baseline, 3 at final follow-up.

III. DISCUSSION

All three children had the typical picture of acute bronchitis: recent-onset cough, low-grade fever, mild rhonchi, normal SpO_2 and no signs of pneumonia. The BSS fell by 70 to 80% in each case, and improvement was noted from the first follow-up, on day 6 to 7 of illness.

Rationale for prescriptions.

Rubrics were taken from Murphy's Homeopathic Medical Repertory [15] and the choice of medicine was confirmed with materia medica [9,10]. In Case 1, dry irritating cough after exposure to cold air, restlessness with anxiety, aggravation by rest and amelioration by motion pointed to *Rhus toxicodendron*, which is classically described with a

dry teasing cough aggravated by cold air and rest and relieved by motion [9,10]. *Ferrum phosphoricum* and *Arsenicum album* were the nearest alternatives, but the strong general modalities and the restlessness favoured *Rhus toxicodendron*.

In Case 2, restlessness with anxiety, burning pain relieved by warmth, thirst for small quantities at short intervals and aggravation after midnight formed the characteristic picture of *Arsenicum album* [9,10]. It was the only remedy covering the rubric of croupy cough after midnight and led the analysis (15/6) with a clear margin over *Sulphur* and *Rhus toxicodendron*.

In Case 3, loose rattling cough with scanty expectoration, aggravation in a warm room and wet weather, desire for open air and fear of being alone led to *Pulsatilla* [9,10]. Although the thermal state was recorded as chilly, the prescription rested on the mental general, the physical general modalities and the characteristic particulars of the cough. *Carbo vegetabilis* and *Sepia*, with the same repertorial score of 11, were differentiated on the same grounds.

Relevance of the BSS.

The BSS gives a structured, symptom-based measure of severity and has served as an outcome in randomized trials of acute bronchitis in adults and in children [7,8,13]. Using it allowed an objective description of change beyond the statement that the patient felt better. Rales, sputum and dyspnoea resolved fastest, which fits the loosening and clearing of bronchial secretions during natural recovery.

Natural history and causality.

Acute bronchitis is self-limiting, and cough often persists for one to three weeks even without treatment [1,2]. The improvement seen here, mostly within 7 to 18 days, is consistent with the natural course, and the effects of the homoeopathic medicine, the auxiliary measures (fluids, steam, rest) and the placebo response cannot be separated. The series is uncontrolled and cannot show that the medicines caused the change. The Modified Naranjo Criteria for homoeopathy may be applied in future work for causal attribution [14].

Strengths and limitations.

Cases were recorded on a uniform case record, the totality and rubrics were set out transparently, and a validated severity score was applied at baseline and at the end. However, the sample is very small, there is no control group or blinding, a single physician assessed outcomes, and the BSS was recorded only at two time points. The BSS was developed in adults and later used in paediatric trials, but it is not validated for every paediatric age group. Viral aetiology was presumed clinically, and follow-up was short.

IV. CONCLUSION

Acute bronchitis in the three children showed marked improvement under individualized homoeopathic treatment, and the cases were managed well with homoeopathic medicines (*Rhus toxicodendron*, *Arsenicum album* and *Pulsatilla*) selected on the totality of symptoms, together with simple auxiliary measures. Assessment with the Bronchitis Severity Score confirmed this improvement objectively: the total BSS fell from 8 to 2, from 10 to 2 and from 10 to 3, a mean reduction from 9.3 to 2.3, with relief of cough, sputum, rales, chest pain on coughing and dyspnoea and no adverse events. These findings suggest that homoeopathy can be a useful option in the management of acute bronchitis in children, and that the BSS is a practical tool to document its course. Because acute bronchitis is self-limiting and this series has no control group, larger controlled studies are advised to confirm these results.

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