

# Is chicken soup an essential drug?

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In the World Health Organization's *Action Programme on Essential Drugs*<sup>1</sup> a drug is considered to be essential if it is "as relevant today as it was 20 years ago," and it is assessed on the basis of 4 principles. The drug must be evidence-based, efficient, flexible and forward looking. We propose here that chicken soup be classified as an essential drug; not only does it comply with these requirements, but it can be considered as relevant today as it was 2000 years ago.

### Evidence-based

To our knowledge, there have been no randomized controlled trials (RCT) done to determine the efficacy of chicken soup. However, we feel that sufficient observational and anecdotal evidence has accumulated over the centuries to make the requirement for such a trial superfluous. In fact, the RCT in medicine is only 50 years old;<sup>2</sup> chicken soup has been around for considerably longer, as can be gleaned from the following quotations from the Babylonian Talmud and the writings of Avicenna and Moses Maimonides.<sup>3</sup>

A special food was "the chicken of Rabbi Abba." Concerning its preparation, there is a divergence of opinion in the commentaries. It was assumed that it was prepared in such a way that after it was cooked, it was soaked in warm water for a long time until it completely dissolved. Rabbi Abba is said to have consumed this fowl as a remedy.<sup>4</sup>

As far as possible, the meat should be that of hens or roosters and their broth should also be taken, because this sort of fowl has virtue in rectifying corrupted humours, whatever the corruption may be, and especially the black humours, so much so that the physicians have mentioned that chicken broth is beneficial in leprosy.<sup>5</sup>

Chicken soup that is boiled neutralizes [body] constitution. This is [both] an excellent food, as well as a medication for the beginning of leprosy, and fattens the [body] substance of the emaciated and those convalescing from illness. Pigeon sucklings and all soups made therefrom have the special property of producing migraine headaches. ... The partridge, if boiled, causes constipation. If it is boiled in its skin, it loosens the stool. The hen and the rooster have [even] more powerful stool-loosening action.<sup>6</sup>



Flesh of fat chickens and broth made therefrom are the most valuable [foods] with which sufferers from this illness [hemorrhoids] should be nourished.<sup>7</sup>

Moreover, in support of observational and anecdotal evidence it can be said that "the absence of evidence is a very different affair [than] having clear evidence that an intervention does not work," and "much of the improvement [during trials for various interventions] will occur because of factors that we neither understand nor have the ability to control for."<sup>8</sup>

Evidence-based medicine applies the best evidence from controlled trials, uncontrolled studies and case reports and purports to consider the patient's values and preferences regarding treatment options as well. We think the popularity of chicken soup, as evidenced by observational data and the experience of generations of patients and healers, shows

overwhelmingly that patients value and prefer this remedy for a number of conditions and ailments.

## Efficiency

Chicken soup as a remedy has been much maligned because of its “old wife’s tale” label. Chicken soup has sometimes been used to symbolize all home remedies; it is referred to often when traditional cures are compared with modern methods; it has been used as a synonym for placebo or useless therapies;<sup>9,10</sup> it has even been used to illustrate the importance of the critical appraisal of medical literature.<sup>11</sup>

The efficacy of chicken soup was investigated in a study conducted by Saketkhoo and colleagues<sup>12</sup> in which the effects of drinking hot water, cold water and chicken soup on nasal mucus velocity and airflow resistance were assessed. The authors proposed that a particular aromatic component of chicken soup is responsible for the increase in nasal mucus velocity observed when people drink it; they also hypothesized that the soup might be useful in treating asthma. Results of investigations of the volatile fractions of chicken broth conducted in the 1950s<sup>13</sup> suggest that sulfur or hydrogen sulfide might be responsible for the unique flavour of chicken soup. It is not surprising, therefore, that no RCTs have been conducted to confirm this, as it might be necessary to use rotten eggs as a control (!).

Among the adverse effects of chicken soup we found reports of hypernatremia,<sup>14,15</sup> anaphylaxis,<sup>16</sup> various minor effects noted in the writings of Maimonides and listed by Rosner<sup>17</sup> and the unusual case of a chicken bone being lodged in the bronchus of a child who had choked while drinking unstrained chicken soup for his pneumonia.<sup>18</sup>

All in all, the anecdotal evidence advocating the benefits of chicken soup far outweighs that describing its shortcomings.

## Flexibility

Clearly, although there may be a “basic” formula for the preparation of chicken soup, there is an infinite number of variations, and many may be equally effective. The reader is referred to almost any cookbook, although it is felt that prescriptions based on traditional, time-proven methods and ingredients will provide the most reliable and satisfactory results. Since no article today is complete without referring to at least one Web site, we include one here — [www.staff.uiuc.edu/~ruthrein/recipes/soups/chicken.html](http://www.staff.uiuc.edu/~ruthrein/recipes/soups/chicken.html). (We have not tested this one personally, however.)

## Forward looking

There are several reasons why we do not believe that it

is possible to conduct a prospective RCT on the effectiveness of chicken soup therapy. First, the number of ailments that would have to be tested is too great. Second, there are too many formulas for the compounding of the drug, and standardization of the ingredients would be difficult. Third, depriving the control group of chicken soup would, in our opinion, be unethical. Finally, we believe it would simply be too difficult to find evidence to refute the therapeutic properties of chicken soup (if such evidence exists).

## Conclusion

We feel certain that, despite the absence of significantly statistical evidence from scientific studies, chicken soup is here to stay as part of the armamentarium of traditional effective remedies. In answer to the question, whether it be a drug or not, chicken soup is ... essential.

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