

Reduce Antibiotic Overuse in Children through Respiratory Tract Infection Prevention

Echinacea can successfully prevent respiratory tract infections and related complications in children, reducing the need for antibiotic use by almost 73%.

Roggwil, Switzerland – May 25, 2018 – Continuing its commitment to helping people maintain and regain their health naturally, A. Vogel Bioforce AG today announced topline results from its clinical study on the preventive administration of *Echinacea* in children. The very latest clinical trial on Echinacea in Switzerland was carried out between 2016 and 2017 with a children-friendly formulation. Results show that *Echinacea* can successfully prevent respiratory tract infections and related complications, thereby reducing the need for antibiotic use by almost 73%.¹⁾ The full results from the study were presented at the conference of the Swiss Society of Pediatrics in Lausanne, Switzerland, on May 24th.

Colds & Flu – the root causes of antibiotic prescriptions

Respiratory tract infections (RTIs) like colds & flu are the world's most frequent reason for antibiotic prescriptions.²⁾ Though of viral origin, infections tend to exacerbate into bacterial conditions, associated with *pneumonia*, *sinusitis* or *bronchitis*. Many physicians revert to antibiotics in order to keep those complicated infections at bay – in southern countries almost prophylactically.^{3,4)}

Interview Dr Mercedes Ogal, pediatrician and speaker at the conference of Swiss Society of Pediatrics in Lausanne: *"The situation in children is especially acute. Six to 8 RTIs linked with a 30% complication rate lead to 1 or 2 antibiotic prescriptions per child and year. These figures representing the average situation in Europe vary considerably between countries and even regions. Today, a vast quantity of antibiotics is still dispensed to children with respiratory tract infections every year."*

Here, the obvious advance of multiresistant bacteria and the [World Health Organization \(WHO\)](#) call to reduce antibiotics collide with parent's expectations and the lack of alternatives to fill this therapeutic gap.

Dr Mercedes Ogal: *"It is tremendously demanding to dissuade parents from giving antibiotics to children with acute pneumonia or otitis media. Physicians are torn between advice from WHO and parent's expectations for effective treatments; antibiotics are understood as such."*

Solutions are sought with high priority in efforts to avoid antibiotics. We followed an alternative route by backtracking to discover the root cause of antibiotic prescriptions. Would it be possible to prevent initial colds and flus as an instrument to reduce secondary complications and thereby the need for antibiotics? Most importantly, would this approach also work in the most susceptible population – in children?

Clinical study shows that Echinaforce® is significantly effective in children

A clinical study was carried out between 2016 and 2017 and included over 200 children aged 4 – 12 years in Switzerland. A new tooth-friendly formulation was developed especially for the use in children (*Echinaforce® Junior tablets*). It contains an extract from a medicinal plant, *Echinacea purpurea*. The children received *Echinaforce® Junior tablets* daily over 4 months or vitamin C for control, and it seemed to work:

Dr Andy Suter, Head of Research and Development at A. Vogel Bioforce AG, Switzerland: *“Most children with Echinacea stayed infection-free. Parents reported significantly elevated immune defences in 90% of these children, which resulted in the prevention of 32.5% RTI infections and 67.3% less fever days. A 63.9% reduction of complicated infections with pneumonia, sinusitis or bronchitis and rare antibiotic prescriptions were found with Echinacea (3.9% in comparison to 14.3% with control, $p < 0.05$).*

The most relevant finding was the reduced need for antibiotics in children treated with Echinacea. They spent 31 days overall on antibiotics in comparison to 111 days in the vitamin C group, which refers to a highly significant 72.7% reduction ($p < 0.001$).

Ogal: *“Children with Echinacea were more stable and robust overall. Apparently, the idea of preventing colds and flu to avoid all the adverse consequences seems to work with Echinacea in children. In view of the new evidence, Echinacea is definitely to be recommended. Parents will see their children confronted with fewer colds and febrile days, will therefore have less doctor visits and can reduce the medication with antipyretics and antibiotics. A vicious cycle can be broken.”*

The good thing about this is, it is highly safe, affordable, obviously highly effective and most importantly, children love the tablets. It should not be forgotten, that compliance is a precondition for efficacy for any therapeutic. With *Echinaforce® Junior* 90% of children adhered to the preventive therapy regimen over 4 months, which is extraordinarily good.

The results are nevertheless surprising considering Echinacea has already been used for decades.

Novel antiviral Echinacea formulation ready for use in children

Dr Andy Suter: *“This new Echinacea formulation is intended to be sucked, thereby applies a film to the pharynx, and protects children from viral infections.”*

Indeed a significantly reduced number of influenza virus infections has been observed with *Echinaforce® Junior tablets* (3 versus 20 infections). This has already been observed in adults after oral application of the Echinacea extract and has now been confirmed in children.

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“This result was not completely unexpected”, explains Dr Peter Fisher from the Royal London Hospital for Integrated Medicine, UK, “the link between colds and flu – otitis media, bronchitis and pneumonia and subsequent antibiotic prescription has been observed before and is entirely understandable. It is only that today evidence is available from a methodologically sound clinical study at hand that this really works in children – and this has important practical implications.”

If this product could present the ultimate solution to the issue with antibiotics, then it would have to be globally available. *“In fact, A. Vogel Bioforce AG owns a distribution net spanning over 25 countries and this would principally be possible”, says Dr Suter, “Echinacea will not replace antibiotics, which are a tremendously important substance class for the acute treatment of life-threatening diseases. Nevertheless, with Echinacea we may be able to use this highly valuable medicine less frequently and more specifically in future. This would be a discussable approach to postpone the problem of resistances, which would be an important gain for humanity.”*

About A. Vogel Bioforce AG

Bioforce AG Switzerland was founded in 1963 by Alfred Vogel in Roggwil, Switzerland. Our mission is to help people maintain or regain health naturally.

A. Vogel Bioforce AG is one of the largest manufacturers of phytopharmaceuticals (herbal medicines) and healthy nutritional products in Switzerland, with a global distribution network in of over 25 countries. In 2017, the Bioforce Group achieved net sales of over CHF 110 million. Together with our partner companies, we employ approximately 500 people worldwide, and our products are available in over 30 countries.

For more information, please visit <https://www.bioforce.ch/de/>

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