

Indonesian doctor sends her message via radio and TV

The practice of parcelling ground-up drug mixtures to treat paediatric conditions, still common in Indonesia, results in irrational drug use that threatens the health of children. An Indonesian paediatrician is using radio and television to call for the practice to stop. Cininta Analen reports.

When Sasha Jusuf's six-month-old baby developed a fever she took her to the emergency department. "Zea had a temperature of 40°C, and was coughing," Sasha remembers. A doctor at the hospital in Jakarta diagnosed a common cold and prescribed paracetamol and a cough syrup. But, seeing little improvement in Zea's condition, 27-year-old Sasha went to a paediatrician the following day. He took a quick look at the baby, "diagnosed" throat inflammation – needless to say, not a disease but a symptom – and prescribed amoxicillin.

After two days on the antibiotic, Zea became extremely lethargic. Alarmed, Sasha returned to the emergency department in the middle of the night where the doctor she had seen on the first visit now discovered hives behind Zea's ears. This time he diagnosed measles and scribbled out a list of powerful medications that included an antibiotic, an antihistamine, an anti-asthma drug and, to top it all off, an anticonvulsant. These were to be ground up into a powder by a pharmacist and given to the baby in fifteen "paediatric" packets.

Such concoctions, known as *puyers* – derived from "powder" in Dutch – are a typical response to commonplace paediatric ailments in Indonesia. According to studies carried out in the Indonesian provinces of Bali in 2000 and West Sumatra in 2006, *puyers* contain on average around four active ingredients, while a national study carried out by the Indonesian Ministry of Health in 1997 reported an average number of medications per prescription of 3.49.

But the reality may be even more alarming according to a preliminary study of prescribing patterns for common paediatric ailments carried out in 2006–2007 by paediatrician Purnamawati S Pujiarto, founder of a nongovernmental organization (NGO) Yayasan Orang Tua Peduli, in collaboration with her colleague Dr Arifianto. This limited study, based on e-mail testimony from mothers aged between

26 and 30 years, found that in every case the women's children had been prescribed mixtures of up to 11 medications for ailments that were both mild and self limiting. The most commonly prescribed drugs were antibiotics.

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Dr Purnamawati S Pujiarto

According to Purnamawati, more than 50% of the medicines consumed in Indonesia are prescribed, dispensed, or sold irrationally, often as a result of the grinding and compounding that is a key aspect of *puyer* production. "Medicines are prescribed for children when they are not needed, when they are

inappropriate, when they are ineffective and when they are unsafe," she says. The practice also leads to overuse of antibiotics and steroids, which can lead to drug resistance. Meanwhile, effective and affordable medicines that are available, including many generic medicines, are underused or not used correctly.

For Dr Sri Suryawati, a leading proponent of rational drug use in Indonesia, where she runs the International Network for Rational Use of Drugs (INRUD), polypharmacy – the prescription of many drugs at one time – is one of the biggest risks associated with the use of *puyers*, notably where there are adverse drug-to-drug interactions. Meanwhile, where side-effects occur, the fact that the drugs have been taken together makes it difficult to pinpoint which medicine is causing the problem. Other concerns include the likelihood of human error in mixing, contamination and lack of information for the consumer. "*Puyer* packets have no information on them," says Suryawati, pointing out that this means that *puyers* are not in compliance with a 1992 law on complete and accurate labelling.



Piles of *puyers*, cocktails of medicines ground up into powder.

WHO/Martin Weber

Children are put at particular risk when the doctor grinds adult solid dosages to a powder, which is then divided into assumed paediatric doses. This was one of many problems underlined by a meeting in March in Geneva of the World Health Organization's Expert Committee on the Selection and Use of Essential Medicines. In a draft report of that meeting published on the Internet, the committee concluded that *puyers* should not be used because "some medicines in the mixture are not indicated for the condition being treated. These medicines add to the risk of adverse events without any possibility of adding additional benefit."

In Indonesia, there are signs that things may be changing. Suryawati takes heart from a recent government decision to include paediatric preparations in the latest revision of the Indonesian National Essential Medicine List of 2008. "This revision is extremely important as there will be no place for compounding anymore when paediatric preparations are available," Suryawati says.

Given the powerful scientific argument against the use of *puyers*, why is it still commonplace in Indonesia? According to Purnamawati, one reason is convenience. "It's easier and faster for the doctors to write the same template

prescription over and over again, rather than prescribing individually and having to explain the sickness, its cause and what must be done by the patient," she says, noting that her study revealed that doctors seldom informed parents about the cause of a given ailment. "They just repeat the symptoms as the 'diagnosis' – the most common being 'a sore throat'," she says. This practice puts the focus on medicating the symptom rather than the cause.

Inertia also plays a role: "Prescribing *puyers* has become a part of the health-care culture," Purnamawati says. It is simply the way things have been done for a long time. Finally, there is the perennial issue of financial interest. "The prescribing pattern in one of our studies showed a low rate of generic prescriptions," says Purnamawati, noting that doctors preferred to prescribe brand-name drugs likely to generate money for the providers.

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Dr Sri Suryawati

In an effort to push back against these entrenched practices, Purnamawati's NGO has made a concerted effort to address the public directly through mass media rather than try to persuade doctors to change their ways. Since 2005, Purnamawati, has promoted the cause of rational drug use through a Be Smarter, Be Healthier campaign, which she publicizes in interviews on radio, television and the Internet. "We encourage people to get health information to reduce their dependency on curative services from doctors," Purnamawati says, adding that a more informed public will encourage doctors to adopt rational use practices.



Dr Purnamawati S Pujiarto

Needless to say the approach has upset members of Indonesia's medical establishment. Back in February, Purnamawati spoke about *puyers* on a programme entitled *Polemik Puyer*, aired on a private television station, RCTI. The show provoked a good deal of controversy and Purnamawati was surprised by the number of doctors who spoke out against her, saying that her statements were misleading. At the same time she was encouraged by the public response. "This show encouraged a critical attitude in the general public and as a result many parents consulted me directly," she says.

Of course not every mother has the courage to adopt this critical attitude when faced by a doctor. Sasha Jusuf certainly did not. But she did have misgivings. "When I got home, I did some research in magazines and on the Internet and I found out that at six months my baby would start teething and that the fever was a common symptom," she says. She didn't give Zea the *puyer* and after a couple of days the baby made a complete recovery. Without knowing it, she was following Purnamawati's recommendations for people who doubt their doctor's *puyer* recipe. "If there are more than two lines in the prescription don't buy it," Purnamawati says. ■



Zea with her father, Jusuf. Zea is now 18 months old.