legal action, etc.), population statistics will still be grossly incorrect measures of IVF programme quality.

Thirdly, attempts to feed the appetite of patients, politicians, and insurance companies for information on IVF programmes by the provision of statistical results summaries under the auspices of well-intentioned professional societies (or regulatory agencies) actually make the problem worse. This is because the data receive an imprimatur of authority, objectivity, and fairness that they cannot have even in theory.

How then, shall patients be best advised to seek professional care for their complex infertility problems? The answer is not simple, and cannot be reduced to a statistic, but it is really the same advice which thoughtful individuals usually follow in seeking professional services for any important purpose. Look for long and extensive experience, innovation, intelligence, and compassion. Learn as much as you can. Review the general reputation of the organization and its professionals locally and nationally. Contact a number of others in the field and ask their advice. Talk to the staff. And lastly, think hard and trust your own judgement.

It's going to take a long time to get this message across. Meanwhile, I await my next 1000 phone calls on IVF statistics with some measure of equanimity. Last night, I had a dream. In this dream, Patrick Steptoe was still alive and he and Bob Edwards had opened an IVF centre in the US. The phone rang:

'Hello. This is Mr. Steptoe.'
'I'm trying to find the doctor who does IVF.'
'I am that doctor.'
'Oh. What's your success rate?'
'Well, that depends upon the problem you have of course. We will go into that in more detail when we get your records or you come for a consultation. But let me tell you this. I invented IVF with my colleague, Professor Edwards, almost 20 years ago. We have accomplished several thousand IVF pregnancies. Patients come to us from all over the world for IVF treatment. Do you have our address?'
'Hey, thanks Doc, but what's your success rate?'

References

The A.R.T. of embroidery
Francois Olivennes¹ and René Frydman

Department of Obstetrics and Gynecology, A. Beclere Hospital, 92 140 Clamart, France

¹To whom correspondence should be addressed

We can only agree with Dr. Schoysman's plea (1996) for honesty and fair results. If everyone is irritated by the quality and reality of some of the scientific presentations and papers on infertility, some of the blame has to be put on the selection procedures of meetings and journals, although medical congresses and journals should not be put in the same category.

The commercial aspect of some of the meetings should not be ignored. Doctors and scientists from all over the world would not attend a meeting if they were not contributing. In many countries, attendance at the meeting can only be funded if a communication has been selected. Therefore, eliminating the contribution eliminates the attendee. There is an easy way to take this issue into account which is to clearly separate oral communications and posters. Every meeting could profit from applying a strict selection procedure for oral presentations to avoid embarrassing presentations of non-randomized studies on 15 cases. Everyone has experienced the amount of information that can be transmitted by a well-organized single day symposium. Medical journals are an altogether different problem. The quality of the contributions has to be outstanding, especially for methodology. This relies totally on the selection procedure of the papers submitted. As far as dealing with the 'embroidering' factors of some 'over-enthusiastic' doctors, the chance of Dr. Schoysman changing the behaviour of those doctors is of course very low. Since statistics are one of the crucial points, the papers could be checked for statistics independently of the refereeing procedure (as does the *Lancet*, for example). However, sometimes, interesting contributions are made by studies which are based on low numbers. For example, in a recent study on very premature babies, a team calculated that it would have taken them 36 years to attain the number of children required for a proper statistical analysis. Hence, in some cases, such a study could contribute to the exchange of medical information, provided that the readers are informed of the weakness of the study.

As far as in-vitro fertilization (IVF) results are concerned, medical journals should try to forbid 'cosmetic surgery' of the results, as pointed out by Dr. Schoysman. As shown in Figure 1, IVF results can differ extensively depending on the different parameters used to express the results. For example, clinical and/or ongoing pregnancies per retrieval and not 'pregnancy rate'. The exact definition of the 'clinical' and 'ongoing' pregnancy should be decided. Implantation rate with a clear definition (fetal sac or heart beat per embryo transferred) should always be mentioned.

Important information should not be omitted. A team with a 10% cancellation rate and 20% pregnancy rates achieves more pregnancies than one with 30% pregnancy rates but a
40% cancellation rate. The number of embryos transferred and the percentage of transfer of three or more embryos should be stated. It is astonishing to see, in medical meetings, the number of IVF teams which routinely put back four or more embryos. Naturally, no figures on multiple pregnancy rate and perinatal outcome are available.

Mandatory guidelines on results presentation could be a good approach to try to avoid the variation in presentation of IVF results. We are proposing to Human Reproduction, the creation of an international committee of experts who could propose guidelines to present IVF results. These guidelines would be applied to all papers mentioning IVF results.

However, one could disagree with the underlying idea of Dr. Schoysman that most of the teams in the world have almost equal results. The first reaction to outstanding results is often to suspect bragging or even fraud. The rumours surrounding the beginning of intracytoplasmic sperm injection (ICSI) are a good example of this attitude. Very few of us could believe the incredible results obtained by ICSI in the most difficult cases. New ideas are often questioned, and if concern over risks and benefits is necessary, the difficulties that people with a new approach can encounter in the scientific world can be sometimes irritating or even discouraging. Many teams tried to apply ICSI with their own ideas on technique and procedures with disappointing results that make them question the truth of the method. After accepting the facts that the best way to succeed was to stick to the described technique and to acquire some training, there were a few teams which could reproduce the 'miracle'. Today ICSI is successful in many hands and no-one has any doubts about its results. However as usual, the wonderful 40% pregnancy rate seems be returning to the more classical 20–30% ongoing pregnancy per retrieval.

Today, some teams have an implantation rate twice as high as the usual rate obtained by most of the IVF units. Two attitudes can be observed: the first is to suspect the team of cheating on numbers, patient selection and indications etc. It is pretentious to assume that anyone with good results is always bragging. This is the 'ostrich-like' behaviour which prevents evaluation of one's own practice. The other attitude is to analyse the results carefully and to find the differences which could explain the better success rate. We believe that outstanding clinical and laboratory work can produce outstanding results. Trying to approach perfection should be the goal of every team in order to increase the chance of our patients having a healthy child.

Reference