Depo-medrone (depo-medrol) is the most widely used preparation but a substantial minority of cases involve the use of Kenalog/Adcortyl/Lederspan, which all contain preservatives such as benzyl alcohol or polyethylene glycol.

Most of the manufacturers clearly state in the information about the product that it is not recommended for epidural use. Nor are these preparations licensed for epidural use.

In 1983, Dr. Roy Selby, of Wisconsin wrote in a letter published in a well-known journal ([i]):

"From the initial observation upon the peripheral nerves of rabbits, and of the retina, optic nerve, brain, spinal cord, and intrathecal nerve roots of rats, it appears that both Depo-Medrol R and its sterile vehicle, polyethylene glycol 4000, can immediately result in the dissolution of myelin and may cause manifestations of loss of neural function.

The two agents appear to act immediately and most intensely in the experimental arrival at the site of contact of the agents upon the nervous tissue, although alterations are found in more remote parts as well.

Because of these findings it may be worthwhile to avoid the use of Depo-Medrol R in and about any nervous elements, including the optic nerve and dorsal nerve roots until the matter is resolved.

This applies only to Depo-Medrol R and not to SOLU-Medrol R which does not appear to possess this action.

These findings, thus far, are compatible with several case reports describing adverse clinical reactions following the use of injections of Depo-Medrol R in or about nervous tissue."

Dr Selby's letter was submitted to the Upjohn Company, manufacturers of Depo-medrol (depo-medrone) who stated that intrathecal administration of Depo-Medrol R may be associated with a number of undesirable side effects.

Accordingly they have placed a "warning" in the Depo-Medrol R packages---"Depo-Medrol is not recommended for intrathecal administration".

Upjohn included the following information in their 1988 data sheet:

"Adverse effects reported with some non-recommended routes of administration:..... Intrathecal/epidural: arachnoiditis, meningitis, paraparesis/paraplegia, sensory disturbances, bowel and bladder dysfunction, headaches, seizures."

Also in 1988, Dr. Dewey Nelson, an American Neurologist, warned of the dangers of intraspinal injection with depo-medrol. ([ii])

He went on to write the following in 1991([iii]): "the author encourages physicians in the US to voluntarily terminate the instraspinal use of methylprednisolone acetate (depo-medrol) before being pressured to do so."

Later, in 1995, appearing on an Australian documentary, he was asked if depo-medrol should be used around the spine.

His answer was brief and to the point "Never!" he responded, unequivocally.

He maintains that there will be an "epidemic" of depo-medrol induced arachnoiditis, and this viewpoint is endorsed by Dr. Burton: he suggests that history is repeating itself: this is the Myodil story again: different drug, same story.

In 1993, David Blunkett MP raised the issue of Depo-Medrone (depo-medrol) in Parliament, but the Government's response was "The Department has issued no specific advice to doctors on this issue."

Later, in February of 1994, David Blunkett issued a news release calling for the halt of "all unrecommended use of this drug (depo-medrone)". As yet, NOTHING has been done! :

The Clinical Affairs Committee of the British Society of Rheumatology issued a statement to its members (1994) on epidural injection of Depo-medrone, which advises that because of the risks attached, if a doctor wishes to use it INDIVIDUAL INFORMED CONSENT would have to be obtained, "IN VIEW OF THE POTENTIAL SERIOUS COMPLICATIONS."

They also recommended avoiding use of depo-medrol, suggesting other preparations.

Unfortunately this is not being adhered to. Department of Health statistics for 1995 suggest that approximately 30,000 epidural injections were performed that year in the UK.

The numbers in the States are likely to be considerably higher. The most commonly used preparation in the UK is depo-medrone (xviii)

In 1998, the Bush and Tanner report (xviii) clearly stated that epidural steroid injections are available "in every District General Hospital where.....specialists are employed."

It went on to say "Furthermore a minority of general practitioners trained in orthopaedic medicine techniques use caudal epidural steroid injections on an outpatient basis.

In some centres, specially trained physiotherapists are giving this treatment under supervision of rheumatologists." It is obviously still in widespread use.

I believe that reports such as that of Bush and Tanner give clinicians a false picture.

Most practitioners do not have time to read the full report critically so will base their practice on its conclusions: which are that ESIs are safe and useful.

The reality is that the report is based on very selective use of the literature, short-term studies being cited (thereby missing reports of long-term adverse effects such as arachnoiditis) and those papers which did not fit the picture (such as the well-known ones by Dewey Nelson) were dismissed as irrelevant.

The issue of unlicensed use is also of some serious concern: in New Zealand, for example, it is mandatory to inform the patient of unlicensed use.

In the UK, however, epidural use is left to the individual doctors' discretion. However, I do not feel that they have access to accurate statistics about the prevalence of adverse effects, especially as they tend to be underreported.

In New Zealand in 1998,The Ministry of Health published a document on the issue of informed consent.

The document actually stipulates about depo-medrol in Scenario 3:

"Because the documented evidence of efficacy is equivocal, the manufacturer warns against the use in unapproved indications and some patients consider they have been seriously disabled by treatment, the specialist considers the treatment should be regarded as experimental under the Code": ***this requires written consent from the patient.***

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[i] Selby R Surg Neurol 1983;19:393-4 Letters to the Editor: Complications of Depo-medrol R

[ii] Nelson DA Neurolgical Review 1988 Jul; 45(7):804-806 Dangers from Methylprednisolone Acetate therapy by Intraspinal Injection.

[iii] Nelson DA Arch Neurol 1991;48(3):259 Further warnings from Australia concerning intraspinal steroids.