

### Box 8.7: Medicines withdrawn from the market\*

Between 1961 and 1992 a total of 131 medicines were withdrawn from France (63), Germany (58), UK (49) and USA (41) (note that some were withdrawn from more than one country). Only ten were withdrawn in all four countries. In the UK the 49 withdrawn medicines can be separated into four groups, as follows:

#### 1) Medicines withdrawn after long-term use, which were marketed before detailed animal or clinical tests, or in use despite known toxicity, and later replaced by a medicine for the same indication with less toxicity

Product	Year of launch	Year withdrawn
Aspirin (paediatric form)	1899	1986
Aminopyrine	1900	1975
Clioquinol	1930 (1900)	1981
Dipyron	1930	1977
Oxyphenisatine	1955	1978
Oxyphenbutazone	1962	1984
Phenacetin	1900	1980
Phenformin	1959	1982

#### 2) Medicines withdrawn because of toxicity (generally carcinogenicity) revealed by animal tests that were continued after launch

Product	Year withdrawn
Alclofenac	1979
Chlormadinone	1970
Danthron	1987
Fenclofenac	1984
Indoprofen	1983
Megestrol	1970
Methapyrilene	1979
Polidexide	1975

#### 3) Medicines withdrawn for reasons unrelated to standard investigation of toxicity (i.e. particular type of toxic effect apparent after launch)

Product	Reason for withdrawal
Alphaxalone	Allergy to excipient
Cromoglycate (eyedrops)	New formulation (untested)
Desensitising vaccines	Allergy
Doxylamine	Alleged teratogenicity
Factor VIII	Risk of AIDS transmission
Growth hormone (natural)	Possibility of CJD transmission
Guanethidine (eyedrops)	New formulation (untested)
Indomethacin-R	New formulation (untested)
Mebanazine	Toxic interaction with diet or other drugs
Nialamide	Toxic interaction with diet or other drugs
Phenoxypropazine	Toxic interaction with diet or other drugs
Thalidomide	Teratogenicity not tested for
Zomepirac	Allergy

#### 4) Medicines withdrawn due to unexpected toxicity

<b>Product</b>	<b>Year of withdrawal</b>	<b>Reason</b>
Benoxaprofen	1982	Toxicity in the aged
Benziodarone	1964	Hepatotoxicity
Domperidone injection	1986	Cardiovascular effects
Feprazone	1984	Multiple
Ibufenac	1968	Hepatotoxicity
Methandrostenolone	1982	Endocrine effects
Metipranolol	1990	Ophthalmological
Mumps vaccine	1992	Neuropsychiatric
Nomifensine	1986	Haematological
Practolol	1975	Rare idiosyncrasy
Prenylamine	1989	Cardiovascular
Propanidid	1983	Allergic type
Sulphamethoxypyridazine	1986	Haematological
Suprofen	1987	Nephrotoxicity
Temafloxacin	1992	Multiple
Terodiline	1991	Cardiovascular
Thenalidine	1961	Haematological
Triazolam	1991	Neuropsychiatric
Tryptophan	1990	Multiple
Zimeldine	1983	Neuropsychiatric

\* Spriet-Pourra C and Auriche M (1994) *Drug Withdrawal From Sale*, 2nd Edition (Richmond: PJB Publications).