

La revue Prescrire Contribution to Consultation on Pharmacovigilance in the EU

The new legislation must be fully applied,
and provisions for patient safety and public
transparency must be improved

Despite the obvious difficulties inherent in detecting financial ties, the Center for Science in the Public Interest is focusing public attention on the issue of conflicts of interest in the United States.

A general search and information source for conflicts of interest would be welcome elsewhere.

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a- This association is mainly funded by subscriptions to its bulletin *Nutrition Action Healthletter*, and receives 5% to 10% of its income from various foundations (ref 7). Its objectives are to provide the public and decision-makers with useful and objective information; to conduct specific research on technological and scientific aspects of food, alcohol, health, the environment, etc.; and to represent citizens before the regulatory, judicial and legislative authorities (ref 8). Its website address is <http://www.cspinet.org>

b- The journals concerned were the *New England Journal of Medicine*, *JAMA*, *Environmental Health Perspectives*, and *Toxicology and Applied Pharmacology* (ref 3).

c- One of the members of this committee, who usually chaired it, participated (without voting) despite receiving yearly payments of \$5000 to \$10 000 from Pfizer (ref 5).

Selected references from Prescrire's literature search.

- 1- Hopkins Tanne J "National Institutes of Health criticised for not preventing conflicts of interest" *BMJ* 2004; **329**: 10.
- 2- Labrador D "Damage control. A crackdown to prevent conflicts of interest at the NIH" *Scientific American* 2004. Website <http://www.sciam.com> accessed 12 October 2005.
- 3- Goozner M "Unrevealed: non-disclosure of conflicts of interest in four leading medical and scientific journals" Center for Science in the Public Interest - Integrity in Science, Washington 2004: 16 pages.
- 4- Center for Science in the Public Interest "The Integrity in Science Database". Website <http://www.cspinet.org> accessed 12 October 2005.
- 5- Center for Science in the Public Interest "FDA lets scientists with drug company ties evaluate new insulin product". Website <http://www.cspinet.org> accessed 12 October 2005.
- 6- Center for Science in the Public Interest "CSPI Calls on Journals to Strengthen Disclosure of Conflicts" Website <http://www.cspinet.org> accessed 12 February 2006.
- 7- Center for Science in the Public Interest "Our funding. CSPI's funding sources". Website <http://www.cspinet.org> accessed 12 October 2005.
- 8- Center for Science in the Public Interest "Mission statement". Website <http://www.cspinet.org> accessed 12 October 2005.

● The new European legislation offers an opportunity to improve pharmacovigilance in the EU. But it must be rigorously applied, without delay, and improved where necessary.

● This position statement is part of Prescrire's contribution to the public consultation on pharmacovigilance in the European Union.

● If it is to serve patients' best interests, pharmacovigilance must receive adequate public funding; public access to drug safety data must be facilitated; and the current confusion between the roles of drug companies and regulatory agencies must be eliminated.

● To help healthcare professionals and patients to identify the most important and most recent warnings, the relevant sections of the SPCs should be highlighted.

● Real transparency means easier access to data and clear justification for decisions based on pharmacovigilance data. "Commercial secrecy" must no longer serve as a pretext to hinder public access to data on drug utilisation.

● The health authorities, including regulatory agencies, must act mainly as advocates for patients and public health, and stop putting drug companies' interests first.

● Additional restrictions are needed on drug companies' influence over pharmacovigilance guidelines and drug safety decisions, given their clear conflicts of interest.

● Pharmacovigilance must be publicly funded, and no longer paid for solely through the licensing fees that regula-

tory agencies charge drug companies for their services. Sufficient funds must be made available to gather and analyse adverse drug reactions reported by members of the public; to exert effective public control over drug safety information; to require companies to conduct postmarketing studies when they are granted conditional product approval on the understanding that such studies will be conducted; to conduct independent pharmacovigilance studies; and to evaluate the impact of drug safety decisions.

● For safety-related marketing decisions to be made independently, a European Pharmacovigilance Committee needs to be established and endowed with the same authority as the Committee for Human Medicinal Products.

On 15 March 2006, the European Commission launched a public consultation on the current functioning of pharmacovigilance in the European Union, as governed by the European Directive and Regulation on medicines for human use published in the Official Journal of the European Union on 30 April 2004 (1-3). As a preamble to this very welcome consultation, the European Commission issued a report on the current strengths and weaknesses of pharmacovigilance in Europe (4). Patients, healthcare professionals and pharmaceutical firms were invited to express their opinions and suggest improvements (3).

For its part, *Prescrire* noted that the new European regulatory framework has still not been adequately applied, and that, as it stands, the new framework cannot be expected to create a system that fulfils public health requirements, as defined by the Berlin Declaration on Pharmacovigilance issued by the International Society of Drug Bulletins (ISDB) in 2005 (5). This article presents ►►

REGULATORY NEWS

► the main points of *Prescrire's* position statement on pharmacovigilance in the EU.

Transparency is a prerequisite for more effective pharmacovigilance

Informing the public and healthcare professionals about pharmacovigilance issues has been one of the roles of the European Medicines Agency (EMA) since its establishment. This role is clearly spelled out in articles 57e and 57f of Regulation (EC) 726/2004. Yet in Spring 2006 EMA only allowed a trickle of drug safety information to escape from its bureaucratic clutches.

Identification of recent pharmacovigilance decisions. When changes are made to drug licensing conditions because of safety concerns, the reasons underlying

these changes are still not fully explained by the European authorities. It would be helpful if at least the relevant parts of the summary of product characteristics were highlighted, so that healthcare professionals and patients can identify the most important and most recent decisions.

Easier access to PSURs. Manufacturers are required to provide EMA and Member States with Periodic Safety Update Reports (PSURs) every 6 months for the first 2 years, every year for the following 2 years, and then every 3 years (instead of every 5 years as previously required) (article 104.6 of Directive 2004/27/EC; article 24.3 of Regulation (EC) 726/2004). These reports must be accompanied by an assessment of the product's "risk-benefit ratio", but public access to these important data is not explicitly required under current European regulations (a).

Easier access to EudraVigilance. All information on adverse drug reactions must be recorded in a database (EudraVigilance), provided for by article 57 of Regulation (EC) 726/2004 and "shall be permanently accessible to all Member States and without delay to the public" (article 102 of Directive 2004/27/EC). This Directive also states that data exchanges will be facilitated by electronic transmission of adverse drug reactions by the companies concerned (article 104 of Directive 2004/27/EC), and also between regulatory agencies (article 105 of Directive 2004/27/EC).

Unrestricted access must be provided to data on adverse drug reactions obtained through spontaneous reports. When no personal data on the patient and/or the reporter are included, issues of confidentiality are not a problem (6). Providing public access to such data has not caused any particular problems in the Netherlands and the United Kingdom for example (7).

Mobilising European citizens concerned about drug safety

The European Directive and Regulation on human medicines, published in the Official Journal of the European Union on 30 April 2004, was adopted through a codecision procedure involving the European Parliament and the Council of Ministers (1-3). Patients, consumers, healthcare professionals and insurance organisations mobilised, notably within the Medicines in Europe Forum, in order to participate in the debates that lasted more than two years, from late 2001 to early 2004 (3).

Thus, concerning pharmacovigilance, the goal of European Regulation (EC) 726/2004 is to "put in place stringent and efficient pharmacovigilance procedures, to allow the competent authority to take provisional emergency measures, including the introduction of amendments to the marketing authorisation and, finally, to permit a reassessment to be made at any time of the risk-benefit balance of a medicinal product" (preamble 30) (2). It also aims to allow "intensive supervision of undesirable effects (...) so as to ensure the rapid withdrawal from the market of any medicinal product presenting a negative risk-benefit balance under normal conditions of use" (preamble 29) (2). And European Directive 2004/27/EC emphasises the need to strengthen "Pharmacovigilance and, more generally, market surveillance and sanctions in the event of failure to comply with the provision" (preamble 20) (1).

Citizens in some European countries have since become even more aware of the guarantees offered by Member States and regulatory agencies concerning pharmacovigilance. For example, an Irish petition demanded the

creation of an independent pharmacovigilance body in Ireland (4). Some national governments have taken positive decisions concerning pharmacovigilance, such as greater public access to pharmacovigilance data in the Netherlands and the United Kingdom (5,6).

However, the Medicines in Europe Forum failed in its attempt to improve the new European regulation with respect to direct reporting of adverse events by patients. Thus, article 101 of Directive 2004/27/EC does not mention this issue (1).

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1- "Directive n° 2004/27/CE du Parlement européen et du Conseil du 31 mars 2004 modifiant la Directive 2001/83/CE instituant un code communautaire relatif aux médicaments à usage humain" *Official Journal of the European Union*, 30 April 2004: L136/34-L136/57.

2- "Règlement (CE) n° 726/2004 du Parlement européen et du Conseil du 31 mars 2004 établissant des procédures communautaires pour l'autorisation et la surveillance en ce qui concerne les médicaments à usage humain et à usage vétérinaire, et instituant une Agence européenne des médicaments" *Official Journal of the European Union*, 30 April 2004: L136/1-L136/33.

3- Prescrire Rédaction "Europe et médicament: les succès obtenus par les citoyens" *Rev Prescrire* 2004; 24 (252): 542-548.

4- Prescrire Rédaction "Redresser le cap des agences du médicament: l'exemple irlandais" *Rev Prescrire* 2005; 25 (262): 461-462.

5- Prescrire Rédaction "Des données de pharmacovigilance en libre accès" *Rev Prescrire* 2006; 26 (271): 268.

6- Prescrire Rédaction "Bonnes pratiques de pharmacovigilance: une actualisation obsolète" *Rev Prescrire* 2005; 25 (267): 857.

What is the fate of data collated by EMA? The EMA is not only responsible for ensuring that companies meet their pharmacovigilance obligations for drugs approved through the centralised procedure (article 57f of Regulation (EC) 726/2004), it must also maintain a centralised European registry of pharmacovigilance data by liaising with national agencies.

The 2005 EMA annual report states that 49 445 reports of adverse drug reactions were received from Member States, 42 120 from other countries and 1 150 PSURs (concerning drugs approved through the centralised procedure) (8). In 2005, EMA added a total of 144 786 reports to the EudraVigilance database, 73 198 of which concerned drugs approved through the centralised procedure (8). Patients and healthcare professionals, however, have access to very little of this information (9).

The conditions under which this mass of data is analysed are unclear (especially multiple reports of the same case). EMA should publish periodic reviews of European pharmacovigilance reports.

Information on the reasons underlying drug safety decisions. Article 22 of Regulation (EC) 726/2004 states that the opinions of the European Committee on Medicinal Products for Human Use (CHMP) must be made public; but it does not explicitly mention analyses of pharmacovigilance data, or the discussions underlying opinions and decisions (2). For example, the reasons underlying recent decisions concerning selective serotonin reuptake inhibitors (SSRIs) are unavailable (4).

However, article 126b of European Direc-

tive 2004/27/EC stipulates that: “Member States shall ensure that the competent authority makes publicly accessible its rules of procedure and those of its committees, agendas for its meetings and records of its meetings, accompanied by decisions taken, details of votes and explanations of votes, including minority opinions” (1). Obligations imposed on Member States should also apply to European institutions. And, in the spirit of Regulation (EC) 1049/2001, dealing with public access to documents held by European institutions, the reasons underlying opinions, and the reports on which they are based, must also be made public (10).

Reports concerning decisions such as those issued by the UK agency (MHRA) are uninformative and must be replaced by documents providing detailed information and arguments. Despite the delay in transposing the relevant text into French law, application of Directive 2004/27/EC by the French regulatory agency led to the publication of the first report from the National Pharmacovigilance Committee (11). This step may not seem like much in itself, but this single document clearly illustrates how useful it is for healthcare professionals and patients to better understand drug safety decisions, thus helping to avoid adverse drug reactions. This trend towards greater transparency must continue until openness becomes the rule.

Ending the hypocrisy of commercial confidentiality. Reliable drug use data are needed in order to know the level of population exposure in relation to the risk of adverse drug reactions. This is addressed in article 23a of Directive 2004/27/EC: “Upon request by the competent authority, particularly in the context of pharmacovigilance, the marketing authorisation holder shall provide the competent authority with all data relating to the volume of sales of the medicinal product, and any data in his possession relating to the volume of prescriptions” (1). Few regulatory agencies have access to these data, particularly data sorted according to age group or sex (4).

These data have nothing to do with “commercial confidentiality”, as described in article 21 of Directive 2004/27/EC. Article 21 concerns the contents of regulatory agencies’ assessment reports that accompany marketing approval decisions. Drug utilisation data have major public health implications and must not be withheld by the authorities, even if drug companies prefer to hide this so-called strategic information on market share, and if market research companies prefer to limit availability of data in order to protect their commercial interests. (b). The number of people exposed to the risk of a

particular adverse drug reaction depends directly on sales volumes, and this information is crucial in establishing the risk-benefit balance.

Regulatory agencies and drug companies: end the mix-up!

Drug companies have specific pharmacovigilance obligations. In particular, they must provide regulatory agencies with all relevant safety data in a timely and open manner. But drug companies are not a substitute for an efficient public pharmacovigilance system, and should not be allowed to interfere with either the analysis of drug safety information or the resulting decisions. Manufacturers have too many vested interests to be trusted in the management of public health problems.

Exclude companies from the decision-making process. The report to the European Commission notes that monitoring of the extent to which companies are meeting their pharmacovigilance obligations is only partially effective: the compliance with the expedited procedure is routinely checked by the agencies in only 41% of the cases, compliance regarding PSURs is checked in 56% of the cases; and action in the case of non compliance is only taken in 52% of cases (4). These data are in keeping with the results of other studies (12).

The current trend is for drug companies to take on many of the regulatory responsibilities of analysis and interpretation of safety data. In France for instance, companies are present at every step of the process, creating major conflicts of interest (6). The pressure exerted by drug companies, for example by appealing fully justified decisions on purely technical grounds (see the example of appetite suppressants), can delay the decision-making process or even create a state of official inertia and lead to an absence of warnings or restrictions, leaving patients exposed to serious adverse reactions to drugs that are in no way essential (13, 14).

The report requested by the European Commission states that decision-making is slower for drugs approved through national procedures than for drugs approved through the centralised procedure or by mutual recognition (4). But the report fails to show to what extent differences among Member States dealing with the same safety problems are related to the degree of independence of national regulatory agencies from the pharmaceutical industry.

Private-sector interference in pharmacovigilance decisions must be carefully evaluated; and abusive appeals against drug safety decisions must be severely punished.

The place of the ICH. Article 106 of Directive 2004/27/EC states that pharmacovigilance guidelines must be drawn up “in accordance with internationally agreed formats”, must “use internationally agreed medical terminology”, and must take into account “international harmonisation work carried out in the field of pharmacovigilance” (1). Recognised international institutions clearly have a role to play; for instance, the World Health Organization (WHO) has a collaborating centre for international drug safety monitoring.

However, the role of the International Conference on Harmonisation for technical requirements of registration of pharmaceuticals for human use (ICH), created jointly in 1990 by the regulatory agencies and the pharmaceutical industries of the United States, Europe and Japan, appears excessive. Through international conferences and, above all, intensive work by a 14-member committee assisted by industry advisors and administrative experts, but with practically no patient or healthcare professional representation, ICH guidelines have been drawn up and adopted by drug companies and regulatory agencies. In dedicated websites ICH pharmacovigilance guidelines are grouped together under the heading “clinical safety” along with other guidelines on “efficacy”.

Six of these ICH recommendations on pharmacovigilance were adopted by the EMEA Committee on Medicinal Products for Human Use (CHMP) (4). Although they are not legally binding in the EU, these guidelines exert a major influence and have important implications for the organisation of pharmacovigilance, content of PSUR, and the sharing and analysis of data. The European regulatory authorities do not even control the definition of certain elements that are crucial for the interpretation and exchange of pharmacovigilance data.

The regulatory authorities thus appear to be beholden to the ICH, and ultimately to the industry representatives that par- ▶▶

a- According to Regulation (EC) 1049/2001 on access to documents held by European institutions, PSURs should be made public because they are “Commission documents” once they enter EMEA (ref 10). Requiring European citizens to make special requests for this information introduces unnecessary delays and is not consistent with the normal functioning of a pharmacovigilance system.

b- The rules of procedure of the French pharmacovigilance committee define as confidential “all information of a commercial and industrial nature, such as manufacturing processes, research and development, financial and economic information, and commercial strategies” (ref 25).

participate in ICH. Drug manufacturers obviously favour a minimum of regulatory obligations when it comes to pharmacovigilance (and drug evaluation). It is crucial to restore the conceptual independence of European pharmacovigilance. Guidelines must be drawn up by European and national regulatory agencies, after broad public consultations. After all, this is a topic with enormous public health implications.

Publicly funded pharmacovigilance focused on patient safety

By increasing the financial resources devoted to European pharmacovigilance, Directive 2004/27/EC has provided an opportunity for a major overhaul of the system.

Guaranteed public funding for pharmacovigilance. Article 102a of Directive 2004/27/EC states that: “*The management of funds intended for activities connected with pharmacovigilance (...) shall be under the permanent control of the competent authorities in order to guarantee their independence*” (1). In the same spirit, article 67.4 of Regulation (EC) 726/2004 stipulates that: “*Activities relating to pharmacovigilance, to the operation of communications networks and to market surveillance shall receive adequate public funding commensurate with the tasks conferred*” (2).

The report requested by the European Commission considers this point to be particularly urgent (4). Indeed, regulatory agencies are currently overly-dependent on the fees they receive from drug companies (8, 15). These fees and taxes represent more than two-thirds of the funds available to the European and French regulatory agencies (69.2% for EMEA in 2005 and 73.5% for the French agency in 2004) (8, 15). This financial dependency is one of the elements that undermines these agencies' impartiality in matters of pharmacovigilance.

Sufficient public funding, as provided for by European legislation, must be budgeted in order to end this dependency at the centralised and national level.

No “subcontracting” of pharmacovigilance information to drug companies. Usually, the “Dear Doctor” letters that announce changes in summaries of product characteristics for safety reasons are written and sent out by the products' manufacturers. It would clarify matters if these letters were sent out by regulatory agencies, as this would accentuate their public health role rather than the special interests of the pharmaceutical industry.

The distribution of “Dear Doctor” letters

by drug companies creates a risk of confusion. Take the celecoxib scandal for example: the French regulatory agency had to prohibit – after it had been sent out – a company “information letter” on celecoxib which, instead of providing the necessary warnings, was in effect a disguised advertisement. The letter claimed that celecoxib was safer than rofecoxib, a similar drug that had already been taken off the market (16).

The European legislation should provide for sufficient funding so that regulatory agencies have the necessary means to distribute pharmacovigilance information themselves.

Public collection of adverse drug reaction reports. European legislation requires that drug companies assume primary responsibility for collection of data on adverse drug reactions to their products. It makes sense for companies to collect data on adverse drug reactions. These data are of as much interest to patients, healthcare professionals and the scientific community as a whole. Private-sector pharmacovigilance must not be a substitute for publicly funded pharmacovigilance systems.

At the time of writing, EMEA is still unable to collect reports of adverse drug reactions directly from healthcare professionals and patients. Other public institutions, such as regional pharmacovigilance centres, must also be in a position to collect these reports, as proposed by the report to the European Commission (4).

The European legislation should provide enough funds to ensure the efficient functioning of a public drug safety data collection system.

Reporting by patients is needed. Article 22 of Regulation 726/2004/EC simply states that “*patients shall be encouraged to communicate any adverse reaction to healthcare professionals*” (2). Yet direct reporting by patients increases the sensitivity of pharmacovigilance systems, as shown by the example of selective serotonin reuptake inhibitors (SSRIs) and by a study assessing the sources of decisive information on adverse drug reactions in children (17, 18).

Various EU Member States already collect reports directly from patients: Denmark, the Netherlands (LAREB), and the United Kingdom (MHRA yellowcard system) (c) (19). Independent organisations also collect this information, in the Netherlands (DGV), Sweden (Kilen), and Germany (Netzwerk ATI) for example (19). With the growing number of drug safety scandals, acceptance of the principle of direct reporting by patients would help to restore public confidence.

The European legislation should provide sufficient funds to ensure that patients are both listened to and informed.

Clarifying the impact of pharmacovigilance on approval conditions.

Regulatory agencies recognise that pharmacovigilance decisions are taken too slowly, especially for drugs approved through national procedures. This was also noted in the report to the European Commission (4).

Opinions of pharmacovigilance bodies are non binding, whatever the marketing approval procedure. Moreover, guidelines published in 2005 by the European Commission, defining “*serious risks to public health*” that justify terminating the mutual recognition procedure, are extremely flimsy and risk exposing patients to adverse reactions to drugs that have no demonstrated therapeutic advantages (20).

A report on the US Food and Drug Administration (FDA) states that failures in post-market surveillance are largely due to the fact that the Office of Drug Safety lacks sufficient clout in the postmarket decision-making process. The Office of Drug Safety is under the authority of the Office of New Drugs, the drug licensing body (21).

In Europe, pharmacovigilance must be taken out of the hands of the Pharmacovigilance Working Party (PhVWP) of the CHMP. Instead, a European Pharmacovigilance Committee should be created, whose opinions (fully justified in the same way as are CHMP opinions) would be a sufficient basis for regulatory authorities to withdraw or modify a marketing approval (without the need for a CHMP opinion). The same system should apply at the national level: in France for example, the pharmacovigilance committee should no longer have to ask the drug approval agency to re-assess a drug's risk-benefit balance when seeking to modify the marketing approval.

Postmarket surveillance studies. The European legislation only provides a legal basis for pharmacovigilance surveys and follow-up studies during the first 5 years for drugs approved through the centralised procedure, and only in “*target groups of patients*” (articles 26 and 57 of Regulation 726/2004/EC) (2). However, pharmacovigilance and postmarket surveillance studies that are a condition for marketing approval are frequently not completed within the agreed timespan (sometimes they are not done at all) (d).

These obligations must be strictly enforced. If the manufacturer fails to conduct these studies, the product concerned should be immediately withdrawn from the market

and a fine at least equivalent to the sales figures generated during the period concerned should be imposed.

Furthermore, when required by emerging safety problems (signals), independent pharmacovigilance studies should be undertaken without delay by the health authorities, financed by public funds specifically set aside to deal with such events.

Proactive management of the risk of adverse drug reactions. European legislation does not mention special monitoring of certain drugs (e). Nevertheless, such lists are established and regularly updated in some countries such as the UK (an inverted black triangle is printed on the labels of new drugs and vaccines), Sweden, New Zealand (Intensive Medicines Monitoring Programme (IMMP)) (22,23).

This practice has the advantage of encouraging reports and accelerates the collection of pharmacovigilance data. The risk of over-reporting appears to be manageable in countries with experience of such lists. It should generally be adopted and EMEA should have the responsibility to compile a list of drugs requiring special pharmacovigilance in Europe.

Evaluating the impact of pharmacovigilance decisions. The report to the European Commission states that the impact of pharmacovigilance decisions is regularly assessed by only 4 of the 29 agencies surveyed (4). This is reminiscent of regulatory agencies' failure to enforce drug companies' pharmacovigilance obligations. Published studies are rare (24).

Routine assessment of the efficacy of pharmacovigilance measures, particularly during crises, requires public funding as provided for in the European legislation.

Pharmacovigilance systems must offer the same guarantees to all European citizens, however a drug is approved or marketed. The new legislation provides an opportunity to improve pharmacovigilance in Europe: it must therefore be rigorously applied without delay, and improved where necessary.

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c- The French Agency, through task forces including patient associations, consumers and French Agency representatives, has developed a standard form for reporting adverse events by patients, and a user guide (ref 26). The French Agency has also started a study on patient reporting of adverse effects (ref 27).

d- See for example the repeated delays in the publication of the French Cadeus study report (refs 28,29); and American experience in this area (ref 21). The Commission's regulation dealing with conditional marketing authorisation, published in 2006, is not fully reassuring (ref 30).

e- According to article 123.4 of Directive 2004/27/EC, EMEA is only required to keep "a publicly accessible register of medicinal products authorised (...) Member States shall notify the Commission if any medicinal product is authorised or ceases to be authorised". EMEA is not required to give its reasons for suspending marketing approval (ref 1).

1- "Directive n° 2004/27/CE du Parlement européen et du Conseil du 31 mars 2004 modifiant la Directive 2001/83/CE instituant un code communautaire relatif aux médicaments à usage humain" Official Journal of the European Union, 30 April 2004: L136/34-L136/57.

2- "Règlement (CE) n° 726/2004 du Parlement européen et du Conseil du 31 mars 2004 établissant des procédures communautaires pour l'autorisation et la surveillance en ce qui concerne les médicaments à usage humain et à usage vétérinaire, et instituant une Agence européenne des médicaments" Official Journal of the European Union, 30 April 2004: L136/1-L136/33.

3- European Commission – Enterprise and Industry Directorate General – Consumer goods – Pharmaceuticals "Commission Public Consultation: An Assessment of the Community System of Pharmacovigilance" 15 March 2006; 11 pages.

4- Reiss R "Assessment of the European Community System of Pharmacovigilance" Fraunhofer Institute for Systems and Innovation Research 25 January 2006; 199 pages.

5- International Society of Drug Bulletins "Berlin Declaration on Pharmacovigilance". Website: <http://66.71.191.169/isdbweb/pag/publications.php>

6- Prescrire Rédaction "Bonnes pratiques de pharmacovigilance: une actualisation obsolète" *Rev Prescrire* 2005; **25** (267): 857 (full version available in French from the Prescrire website www.prescrire.org: 4 pages).

7- Prescrire Rédaction "Des données de pharmacovigilance en libre accès" *Rev Prescrire* 2006; **26** (271): 268.

8- European Medicines Agency "Annual report of the European Medicines Agency 2005" 9 March 2006. Website <http://www.emea.eu.int/> accessed 17 April 2006.

9- Prescrire Rédaction "Les agences du médicament annoncent leur volonté de transparence, mais on attend des faits" *Rev Prescrire* 2006; **26** (269): 146.

10- "Règlement (CE) n° 1049/2001 du Parlement européen et du Conseil du 30 mai 2001 relatif à l'accès du public aux documents du Parlement européen, du Conseil et de la Commission" *Official Journal of the European Union*, 31 May 2001; L145/43-L145/48.

11- Prescrire Rédaction "Compte rendus de la Commission nationale de pharmacovigilance" *Rev Prescrire* 2006; **26** (273): 427-429.

12- Koster MC and van den Oetelaar AH "European pharmacovigilance: an overview of pharmacovigilance inspections" *Pharmacoepidemiol Drug Saf* 2005; **14** (10): 711-713.

13- Prescrire Editorial Staff "What matters most to the French regulatory agency: public health or the health of drug companies?" *Prescrire Int* 2006; **15** (81): 34-36.

14- Prescrire Editorial Staff "Appetite suppressants: second decision of the European court" *Prescrire Int* 2003; **12** (65): 114-115.

15- Agence française de sécurité sanitaire des produits de santé "Rapport annuel 2004" Website

<http://agmed.sante.gouv.fr> accessed 17 April 2006.

16- "Décision du 24 décembre 2004 interdisant des publicités pour des médicaments mentionnés à l'article L. 5122-1, premier alinéa, du code de la santé publique destinées aux personnes appelées à prescrire ou à délivrer ces médicaments ou à les utiliser dans l'exercice de leur art et exigeant la diffusion de rectificatifs" *Journal Officiel* 21 of the 26 January 2005. Website <http://www.legifrance.fr> accessed 12 May 2005.

17- Medawar C et al. "Paroxetine, Panorama and user reporting of ADRs: Consumer intelligence matters in clinical practice and post-marketing drug surveillance" *Int J Risk Saf Med* 2002; **15**: 161-169.

18- Haffner S et al. "Detecting adverse drug reactions on paediatric wards" *Drug Saf* 2005; **28** (5): 453-464.

19- Health Action International Europe "Patients' reporting of adverse reactions - Outcomes of a seminar" 26 May 2005. Website <http://haiweb.org> accessed 17 April 2006.

20- Prescrire Rédaction "AMM et santé publique: les recommandations minimalistes de la Commission européenne" *Rev Prescrire* 2006; **26** (268): 63-64.

21- United States Government Accountability Office "Drug safety - Improvement needed in FDA's post-market decision-making and oversight process" Report GAO-06-402 March 2006 Website <http://www.gao.gov> accessed 27 April 2006.

22- Medicines and Healthcare products Regulatory Agency - Committee on Safety of Medicines "Monitoring the safety and quality of medicines: New drugs under intensive surveillance (black triangle list)" website <http://www.mca.gov.uk/ourwork/monitorsafequalmed/newdrugs/newdrugs.htm>

23- New Zealand Medicines and Medical Devices Safety Authority "Intensive Medicines Monitoring Programme" website <http://www.medsafe.govt.nz/PUArticlesPage.htm>

24- Murray ML et al. "Effects of the committee on safety of medicines advice on antidepressant prescribing to children and adolescents in the UK" *Drug Saf* 2005; **28** (12): 1151-1157.

25- Agence française de sécurité sanitaire des produits de santé "Règlement intérieur de la Commission nationale de pharmacovigilance" Adoption underway.

26- Agence française de sécurité sanitaire des produits de santé "Partenariat avec les associations de patients et de consommateurs. Bilan et perspectives" Website <http://agmed.sante.gouv.fr> accessed 17 April 2006.

27- Agence française de sécurité sanitaire des produits de santé "Afsaps/Associations de patients" Website <http://afsaps.sante.fr/html/1/assoc/assoc.htm> accessed 7 June 2006.

28- Prescrire Editorial Staff "How to avoid future Vioxx[®]-type scandals" *Prescrire Int* 2005; **14** (77): 115-117.

29- Prescrire Rédaction "Comment faire émerger des progrès thérapeutiques malgré un système d'innovation en faillite" *Rev Prescrire* 2006; **26** (270): 225-228.

30- Prescrire Rédaction "AMM conditionnelle: règlement amélioré... reste à l'appliquer" *Rev Prescrire* 2006; **26** (274): 544.