The presence of pharmaceutical industry sales representatives almost seems a fact of life at many modern medical centres and universities around the world. Many medical and pharmacy students come into contact with pharmaceutical industry sales representatives during their training. Later on in the careers of many health professionals, encounters with sales representatives can occur on a daily basis, taking up a substantial portion of a busy health professional’s time. However, health professionals have a choice in the matter – they may choose not to see pharmaceutical sales representatives at all or they may attempt to manage such interactions.

This chapter aims to provide information to help you make up your own mind on this issue. This choice has important consequences for health professionals' practice and patients, so requires careful consideration.

Aims of this chapter

By the end of the session based on this chapter, you should be able to answer a series of questions on your interactions with sales representatives:

- In what ways, if any, might I hope to benefit from meeting with sales representatives?
- How are sales representatives selected, trained, supported and managed?
- What information do sales representatives provide?
- How might contact with sales representatives influence me in a positive or negative way?
- Should I have contact with sales representatives at all?
- Is it possible, if I choose to have contact with sales representatives, to minimise the potential harm and maximise the potential benefit for my professional development and practice?

This chapter presents evidence that we believe can be helpful in addressing these questions, and ends with a series of activities that will allow students to work on the issue in more depth.
The current situation

Many medical and pharmacy students come into contact with pharmaceutical sales representatives during their training. Sales representatives may be invited to address students in a formal setting or may exhibit their products at various functions. They may provide food and drink or sponsorship for educational sessions.

In general, most of sales representatives’ time is directed at one-to-one contact with practising health professionals. Spending on this form of promotion – also called ‘detailing’ – represents a large proportion of the pharmaceutical industry’s marketing budget. In 2004, in the US, it was estimated that there were 90,000 sales representatives and that pharmaceutical manufacturers spent more than US$10 billion on this form of marketing (Lam, 2004). This may represent more than a quarter of their total marketing expenditure and represent at least US$8,000 to US$13,000 spent on such activities per year, for each physician in the US. Sales representatives are also involved in the provision of medicine samples. The pharmaceutical industry ranks as among the most profitable, and much of its success can be traced to effective marketing of its products, to both health professionals and consumers. The industry would not continue to spend as much as it does on sales representatives (and samples, where allowed to do so) if this form of promotion was not effective. There is also research evidence that one-to-one ‘detailing’ visits are one of the most effective techniques for changing prescribing behaviours (Oxman, 1995). This is partly because sales representatives can adapt their messages and influence techniques immediately depending on how health professionals respond.

Sales representatives are employed primarily to market their company’s products, whilst health professionals aim first and foremost to provide health-care services to patients. It is unclear whether contact with pharmaceutical sales representatives can effectively be managed, and critics of this approach have instead made very strong arguments for ‘divestment’. The abstract of one such paper, by Howard Brody, is shown in Box 1.

Box 1: Why physicians should refuse to see pharmaceutical representatives

Whether physicians ought to interact with pharmaceutical sales representatives (reps) is a question worthy of careful ethical analysis. The issue presents a challenge to both professional integrity and time management. Empirical data suggest that interactions with pharmaceutical reps increase the chances that the physician will act contrary to duties owed to the patient. Ideally, a physician might both interact with reps and also do the research necessary to counteract the commercial bias in their messages. But a physician who actually did that research would, in turn, be devoting a good deal of time that might better be spent in other activities. The counterargument, that one is obligated to see representatives to obtain free samples to best serve one’s patients, can be shown in most practice settings not to be compelling. Physicians ought to refuse to visit with representatives as a matter of both professional integrity and sensible time management (Brody, 2005).
Could you benefit from meeting with sales reps?

Before addressing other aspects of this issue, it is important to ask why health professionals might wish to establish such relationships in the first place and examine the evidence supporting these beliefs. There would seem to be only three possible areas of ‘benefit’ that arise from this activity:

- Sales representatives might be able to provide information that is useful to health professionals;
- These industry representatives provide items (including medicine samples) that can be given to patients who might not otherwise be able to afford them;
- They provide personal blandishments (gifts).

Any such ‘benefits’ would of course have to be balanced against the risk that the information is biased and other ‘harms’ (ethical, financial, or otherwise) that might be inherent to this relationship.

The quality of the information provided is addressed later in this chapter, in relation to the training given to sales representatives and the ways they are managed. It is worth noting that substantial time and effort would be required if individual health professionals chose to listen to such presentations, and insisted upon verifying the accuracy of the information provided. This issue is addressed in detail by Brody (2005). Contrary arguments have been made, for example, by those who see promotion as raising awareness of untreated medical conditions and thus providing a societal good (Dubois, 2003).

Industry does contribute large numbers of medicine samples to physicians’ offices and clinics. This practice is fundamentally a promotional tool used to influence prescribers and dispensers and to increase the sales of new (and often expensive) medicines. However, health professionals should question whether this practice is an efficient and equitable way to provide access to medicines for poor patients. Even without considering the fact that samples are not routinely used in this fashion, physicians who provide samples to poor patients may find that they have chosen sub-optimal medicines simply because they were available as samples. After such samples run out, these patients – who almost invariably are continued on the expensive brand-name products – end up paying much more for their medicines than if they had been given a therapeutically equivalent, or even more preferable, generic medication, all along.

Provision of gifts

Many recipients of industry ‘gifts’ vehemently deny that these items (particularly when they are of relatively little monetary value) influence their practice, despite strong evidence to the contrary (Wazana, 2000; Steinman et al., 2001; Dana and Loewenstein, 2003; Katz et al., 2003). They also believe that revealing the existence of such gifts to their patients will resolve the ethical problems that may exist. Brennan and colleagues (2006) have written about what they call the ‘myth of small gifts and full disclosures’. They have also summarised the evidence for the social science finding that it is the creation of a
relationship that leads to influence on behaviours, rather than the size of the ‘gift’. Anyone who receives a gift will feel the need to reciprocate, to give something in return. There is a fundamental conflict of interest for health professionals who accept ‘gifts’ from the health industry (including the pharmaceutical industry) and are then asked to decide whether and how to spend someone else’s money for products the giver of such gifts is selling. This is very different from taking a ‘gift’ from a salesman who is asking you to spend your own money on one of his products. Even in this case, accepting a gift can lead to what would otherwise be an unwanted purchase (Cialdini, 2000).

Some of the items provided by sales representatives could be passed on to patients. In many instances, patients would not choose to buy these items if they had to pay for them directly. It is important to remember that, in general, patients do, in fact, pay for these items (even when they are not passed on) through higher drug prices. If patients were given a choice of lower prices without the gift item, many would choose the lower price.

Selection and training of sales representatives

Although some sales representatives have a background in the health sciences, this is by no means a requirement. In fact, sales representatives are typically chosen for their ability to build relationships with prescribers and dispensers. Commenting on the recent, pronounced trend of companies hiring sports cheerleaders for these positions, Lamberto Andreotti, President of Worldwide Pharmaceuticals for Bristol-Myers Squibb, said “Obviously, people hired for the work have to be extroverts, a good conversationalist, a pleasant person to talk to; but that has nothing to do with looks, it’s the personality.” (Saul, 2005). Notably, there was no mention of the scientific training necessary to provide what is sometimes claimed by pharmaceutical companies to be primarily an educational and scientific task.

Although details of representative training are not typically made public, some information about this is available, from the companies themselves, individuals who previously held such positions, and (in a few instances) in sworn testimony at legal proceedings. It seems clear that there is intensive training on selected aspects of the products they promote, the conditions for which such products can be used, and the sales techniques most likely to increase their use. This includes training on how to criticise competitors’ products and on how to handle objections or difficult questions that their customers may pose. However, in at least some cases, they are coached to change the subject when the questions are uncomfortable or to point out evidence contrary to the claims being made (Merck, 2001). These techniques are practised in role plays and covered again in refresher training. In many countries, sales representatives are videotaped practising their techniques with colleagues role-playing a wide range of doctor ‘types’, so that the sales representative gets feedback about even the tiniest details of their performance. Sales representatives are often required to pass a test on their product knowledge before being allowed into the field. In some cases, training will cover the code of conduct written by the pharmaceutical manufacturers’ association or the regulatory authorities in that area.

Sales representatives are rewarded for increasing sales figures. They are often paid a bonus in addition to their salary, based on sales achieved. Sometimes the bonuses are a large
percentage of their total remuneration.

“I wonder today, more than ever before, how am I to continuously keep finding that tiny little spot in my customer’s mind to absorb and accept my product message, so that I can get the prescriptions that any pharma marketer so earnestly works for.” – Percy Asundaria, a pharmaceutical sales representative (Asundaria, 2009)

What information do representatives provide?

Sales representatives are hired to sell particular products and rewarded for doing so successfully. This is true regardless of whether the products they are detailing are as good as or better than those of competitors. It is not possible that every medicine is the best one available, and indeed there are many instances where it can be argued that taking no medicine is preferable to those that are being promoted. There is good evidence that the information provided by pharmaceutical sales representatives is frequently incomplete, and biased towards the products being marketed (Ziegler, 1995; Lexchin, 1997; Roughead et al., 1998; Roughead et al., 1998a; Maestri et al., 2000). There is often a lack of balance in the information provided, with greater emphasis on purported benefits of the company’s product and less information about the potential risks associated with that medicine. Pharmaceutical sales representatives may fail to mention side effects, contraindications and interactions. Over time, they may also extend or change the indications that are presented, promoting use of the medicine in conditions for which it is not registered. A recent example was the promotion of gabapentin for indications other than epilepsy (Sweet, 2003).

Even though they may be aware of these potential biases, many prescribers and dispensers continue to rely heavily on sales representatives for information about medicines. They may even list sales representatives and their promotional literature as their most important source of pharmaceutical information (Norris et al., 2005). Health professionals generally want information about the indications and benefits of a medicine, its safety, and how it compares with other new medicines used for the same problem. They prefer to have this information presented in as simple and unambiguous a form as possible. They may, however, recognise that available evidence is sometimes not that clear cut.

Brody (2005) has argued that busy health professionals do not have the time to access and evaluate the primary literature to verify the information received from sales representatives. It is also true that most health professionals are not trained in critical appraisal of the literature. Seeing sales representatives, in addition to accessing and evaluating the primary literature (if one did have the time and training to do so), would take even more time and effort. Sources of information about medicines that are independent of the pharmaceutical industry exist and present an important resource for health professionals. (See Chapter 8 for a list of independent information sources.) Brody concludes that the time spent seeing sales representatives could be more effectively used reading up-to-date, evidence-based information.

“Unfortunately, most new drugs that appear on the … market offer little or no advantage over existing therapies. A company may feel obliged to try to sell them, but does a doctor necessarily need to feel obliged to see a sales representative to learn about them?” – Joel Lexchin, emergency physician, professor (Lexchin, 2001)
Could contact with sales representatives influence you?

Influence on prescribing

There is evidence that exposure to pharmaceutical promotion – including contact with sales representatives – has an adverse impact on prescribing habits. The decision to start using a ‘new’ medicine is often the result of contact with a pharmaceutical sales representative (Peay and Peay, 1988; Prosser et al., 2003). Many observational studies have found an association between prescriber reliance on sales representatives and more frequent or lower quality prescribing. (See the following references for more on this topic: De Bakker et al., 2007; Muijres et al., 2005; Steinman et al., 2007; Stafford et al., 2004 and Prosser and Walley, 2003). The more a prescriber has contact with the pharmaceutical industry, the more likely he or she is to recommend that a medicine be added to the hospital formulary or essential medicines list – even when such new medicines represent little or no therapeutic advantage over those already available and cost substantially more (Chren et al., 1994). The authors of this chapter are not aware of any studies that have found an improvement in the quality of prescribing associated with exposure to sales representatives.

Influence techniques

Tape recordings of sales representatives visiting doctors in Australia show that they frequently use five of the main types of influence techniques that have been identified by social psychologists. (Roughead et al., 1998a) The five techniques are: trust experts, trust peers, trust people we like, commitment consistency and gifts. The techniques used to influence health professionals have been discussed in Chapter 2, but the main points relating to sales representatives are reinforced here. The techniques used by sales representatives include appeals to authority figures (‘opinion leaders’ – such as experts or academics), well-known hospitals or specialist groups, as well as social validation (such as references to peer group behaviour). Influential providers who participate in ‘educational’ activities on behalf of industry can receive substantial payment for such work, far in excess of the relatively smaller amounts given to individual prescribers. It is unclear to what extent such large financial payments influence the beliefs (and thus pronouncements) of these opinion leaders, above and beyond that accomplished simply by the ‘gift relationship’.

A sense of entitlement

The relationship that develops between a sales representative and a prescriber or dispenser is often based on reciprocation. This is, in turn, based on the creation of a positive relationship between individuals (Oldani, 2004). The sales representative provides ‘gifts’, in the form of samples, printed material, pens or other practice-related items, or invitations to social or educational events. It is natural for this to create a positive response. Humans are flattered by such attention and generosity – particularly when they feel it is deserved, given how hard they work, often with what may seem like inadequate recognition.

Creating feelings of obligation
It is normal for gifts to automatically lead to a desire to reciprocate, by providing something in return. The health professional may, for example, agree to prescribe or sell the medicine being promoted or just agree to give the representative a good hearing. Because reciprocal obligation can work without conscious awareness, health professionals may not be aware that they would not have agreed to the representative’s request if they had not received a gift. Large gifts are more effective than small gifts at changing the immediate behaviours of larger numbers of people. Small gifts, however, may be more effective at changing attitudes than large gifts. This is because human beings tend to construct beliefs and attitudes that are concordant with our own behaviour, and it is more comfortable to believe that we have done something because it was ‘correct’ than to admit that it was based simply on a small gift received. Thus, because of their impact on attitudes and beliefs, small gifts may actually be more effective, in the long term, at changing behaviour (O’Keefe, 2002).

Effects of samples or starter packs on patient care

A common feature in some countries is that sales representatives offer prescribers and dispensers samples of the medicines they are promoting. The assumption is that these samples will be given to patients, particularly ones who are unable to afford them, thus saving them or the health system money. There is evidence, however, that samples are actually most often used by physicians and staff themselves, and/or given to patients who can easily afford them (Westfall et al., 1997; Adair et al., 2005). Samples of expensive new medications are often provided, which may lead providers to prescribe these same agents to other patients. It can be difficult to change patients who receive such samples to other, less expensive alternatives once the samples are no longer available. This may result in the faster and more extensive adoption of expensive new medicines. Some countries, such as South Africa, have banned the use of sampling altogether (Republic of South Africa, 1965). Individual institutions have also done so, as reported by MacKinnon (2004).

“'The evidence available today, therefore, seems conclusive on 2 points — first, that we are indeed heavily influenced by reps (pharmaceutical sales representatives); and second, that we ourselves are very poor judges of the extent of that influence.'

'Reps are not evil, but they are time-consuming and serve interests that often are at odds with those of our patients.'” – Howard Brody, family physician, professor (Brody, 2005)

Can you engage critically with sales representatives?

As noted earlier, some commentators suggest that providers can meet with sales representatives, but that for this to be productive and ethical, it must involve some form of critical engagement (Day, 2000). In France, the independent medicines information bulletin La revue Prescrire has developed a checklist for use in an ongoing survey of the content of pharmaceutical sales representatives’ visits. It suggests that the questions posed can be used as the basis of a more critical engagement with sales representatives (see Box 2) (Bardelay and Bécel, 1995). It suggests asking for the data sheet or package insert approved by the medicines regulatory authority and comparing what it says with what the representative says. It also suggests that the areas that should be questioned critically are:
• Efficacy – especially compared to the medicine or non-pharmaceutical option you currently use for that indication.
• Safety – especially in the patient population you may be treating (for example, the elderly).
• Utility – characteristics of the new medicine that will make it easier to use, cheaper or more convenient.
• Evidence for the claims made and the opinions on the medicine expressed by respected authorities (such as the national treatment guidelines).

The information provided by sales representatives rarely addresses these questions (Bardelay and Bécel, 1995).

In order to engage critically, one must evaluate evidence in a systematic way. This is, of course, far less simple than a series of check boxes, and there is an entire discipline of clinical epidemiology (now popularly thought of as ‘evidence-based medicine’), in which individuals can spend several years of training to develop true expertise. (Some additional material about evidence-based medicine is provided in Chapter 8.)

**Box 2: La revue Prescrire survey about sales representatives**

1. Do the indications match those on the data sheet?
2. Does the dose regimen match that on the data sheet?
3. Did the representative spontaneously mention side effects?
4. Did the representative spontaneously mention contraindications?
5. Did the representative spontaneously mention drug interactions?
6. Given the type of drug, do you think the representative should have mentioned information on side effects, contraindications and drug interactions?
7. Was the representative willing to answer your questions?
8. Did you find the representative convincing?
9. Were there strong inducements to prescribe the drug? (Bardelay D, Bécel D, 1995)

**Institutional policies on sales representatives**

Instead of leaving the choice to individual health professionals, many institutions have tried to develop policies to govern the interaction between their staff (and students) and sales representatives and their employers. (An example of one such policy document is provided in Box 3 at the end of this chapter in the student activity section. This box includes the key points in a policy on pharmaceutical sales representatives’ on-site activities, developed by the University of Pennsylvania Hospital, US.)

A general format for such a policy would include the following elements:

• Reference to any self-regulatory or government-enforced regulations regarding pharmaceutical promotion;
• A clear process that either prevents or restricts access to the health facility or teaching institution by sales representatives (for example, by requiring that they first make arrangements with a central office, such as the hospital pharmacy or a drug and
therapeutics committee’s secretariat);
- Restrictions on access by sales representatives to patient care areas;
- Rules about how promotional material may be displayed and distributed;
- Rules about the provision of medicines for use in clinical trials, particularly phase IV post-marketing trials;
- Rules about the provision of samples to staff and patients.

**Should you continue contact with sales representatives?**

Brody has written that “*our medical culture stresses a sense of entitlement to reps’ [sales representatives] goodies and that we have an apparently endless ability to rationalize why we see reps [sales representatives] and accept their gifts while imagining we are little influenced as a result*” (Brody, 2005). In reality, however, physicians and pharmacists face a choice (Doran et al., 2006):

- Avoidance of sales representatives;
- Critical engagement; or
- Uncritical engagement.

The avoidance approach is based on the view that health professionals and the pharmaceutical industry serve interests that sometimes overlap, but may also conflict. Since there is no proven way to ensure that contact with pharmaceutical sales representatives does not influence a health professional’s behaviour, avoiding contact would seem to be the most prudent choice. Any attempt to ‘filter’ the potentially biased information received will be time-consuming. Is it not better to use the time instead accessing independent, unbiased sources of information? A similar argument has been made in relation to continuing medical education (Relman, 2001).

The other option that has been discussed is to continue to see sales representatives but to try to engage critically in the process, to pose questions and assess the information provided. Rules of engagement might include some or all of the following:

- Limiting interactions with sales representatives to group rather than one-to-one presentations in a clinic, hospital or pharmacy;
- Limiting the frequency of representatives’ visits;
- Developing a set of ethical guidelines concerning food, gifts, invitations, etc.;
- Writing a guide for sales representatives on information to cover in a presentation, similar to the list in Box 3, as well as materials to leave behind, such as the drug data sheet;
- Designating one member of staff to evaluate presentations and provide feedback to the sales representative, for example, on information to include or omit next time. If improvements occur, contacts could be maintained, if not, they could be curtailed.

**Contacts during professional education**

Institutions offering undergraduate and postgraduate education to health professionals
(such as residency or specialist training programmes) have expressed concern about the potential impact of unregulated contact between their staff and students and the pharmaceutical industry (Sandberg et al., 1997; Rogers et al., 2004; Zipkin and Steinman, 2005). Some have suggested that the best way to prevent such unregulated contact is to initiate it, under some type of supervision, during a doctor or pharmacist’s training - although there is no evidence that this can be done in a way that mitigates the problems discussed earlier. In contrast, there is evidence that prohibiting contact with representatives leads to more skeptical attitudes (McCormick et al., 2001).

**Conclusion**

Medical practitioners and the pharmaceutical industry have been described as serving “interests that sometimes overlap and sometimes conflict” (Komesaroff and Kerridge, 2002). The same can be said of pharmacists. Although there are programmes at some institutions to educate students about pharmaceutical promotion, they are still few in number (Mintzes, 2005). One of these has shown that students become more uncertain about the accuracy and ethics of sales representatives’ activities after completing the programme (Wilkes and Hoffman, 2001). The authors concluded that their duty, as educators, was “to raise questions and concerns in the minds of students”, “to teach them to think critically … including about aspects of the ‘medical culture’ into which they have been so forcefully introduced”. This chapter hopes to have achieved the same aim – to have unsettled long-held views and to have provoked critical thought and debate.

**Student exercises**

1. **Watch sales representatives**
   View and discuss a video clip of a pharmaceutical sales representative’s presentation, if you have access to one. Use the *Prescrire* checklist to analyse contents. Make a list as well of the types of persuasive techniques the sales representative used.

2. **Start a debate.**
   Using the following references, organise a debate between two groups of students. One group will argue that it is better not to have any contact with pharmaceutical sales representatives at all. The other group will argue that it is possible to engage critically and to the advantage of the health professional and his/her patients.


For additional material, the following reference can be used: Norris P, Herxheimer A, Lexchin J, et al. (2005) Drug promotion. What we know, what we have yet to learn. Geneva, World Health Organization and Health Action International.
3. **Find evidence.**

Outline the evidence that exists for the impact of pharmaceutical representatives on professional practice (e.g. prescribing). To do this, students should break into small groups, each working with two or three of the references listed below. All of the groups should present their findings to the rest of the class.


     ([http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TDC-42YF53S-6&_user=2822922&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000058881&_version=1&_urlVersion=0&_userid=2822922&md5=f11583a13168d1f6ebed19f67d704c5c](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TDC-42YF53S-6&_user=2822922&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000058881&_version=1&_urlVersion=0&_userid=2822922&md5=f11583a13168d1f6ebed19f67d704c5c), accessed 10 March 2009).

   • de Bakker DH, Coffie DS, Heerdink ER et al. (2007). Determinants of the range of drugs prescribed in general practice: a cross-sectional analysis. *BMC Health Serv Res.* Aug 22,7:132  


4. Write a policy

Based on the example of the university hospital policy provided (see Box 3), develop an appropriate policy for a community health clinic or an educational institution on dealing with pharmaceutical sales representatives. The following reading materials may also be consulted:


**Box 3: Key points in a university hospital policy**
PHARMACEUTICAL COMPANY REPRESENTATIVE ACTIVITY


**Procedures**
- All sales representatives must register with Pharmacy Services and sign a copy of the policy on their first visit to the hospital.
- Sales representatives must have scheduled appointments.
- The hospital can set limits on numbers of representatives/company.

**Authorised and unauthorised areas**
- No sales representatives allowed in patient care units, including operative areas and the emergency department.
- Sales representatives may not see patients, review charts or medical records, go to rounds or attend surgery.

**Non-formulary drugs**
- If a drug has been evaluated by the Pharmacy & Therapeutics Committee and been denied formulary status, it may not be promoted on hospital premises.
- If a sales representative promotes a drug to hospital staff, they must first provide the Pharmacy Drug Information Service with formulary packets and information on the medication.

**Sample medications and promotional items**
- No samples allowed on premises.
- Vouchers for medication samples are prohibited in inpatient areas.
- Promotional items such as pens, notepads and ‘reminder’ items are prohibited.

**Education**
- Continuing Medical Education (CME) content is to be controlled by course directors and not the company providing the educational grant.
- Pharmaceutical company representatives are expected to communicate warnings and contraindications with the same fervor with which they promote indications and endorsements by medical experts.
- All in-services, lectures or other presentations to staff must be registered at least one month beforehand and pre-approved by the director of the relevant department.
- All non-CME programmes must be limited to discussion of formulary drugs.

**Meals and gifts**
- Gifts to professional staff are prohibited.
- Food is not to be provided directly by sales representatives.
- Hospital personnel or resources such as e-mail may not be used to distribute information on promotional events.
- No compensation allowed for time listening to promotional presentations.

**References**


Komesaroff PA, Kerridge IH (2002). Ethical issues concerning the relationships between medical practitioners and the pharmaceutical industry. Medical Journal of Australia, 176(3):118-121.


