Osteoporosis
Older people with osteoporosis will be at an increased risk of fracture if they fall. The NSF states that interventions to manage osteoporosis should be focused on people with multiple risk factors. The primary risk factors include:
- Those who have a previous fragility fracture.
- Those taking long-term courses of corticosteroids.
- Those who have a history of postmenopausal osteoporosis in their family.
- Those who have a disease that increases risk (e.g., liver or thyroid disease, malabsorption, alcoholism, rheumatoid arthritis, male hypogonadism).
- Those who have a family history of osteoporosis and hip fracture.
- Those who are underweight (BMI <18.5 kg/m²).
- Those who take corticosteroids for conditions such as asthma and rheumatoid arthritis, as these are an increased risk of osteoporosis.

Osteoporosis is a common condition characterized by low bone density and increased risk of fractures. It affects both men and women and is more prevalent in older adults. Preventive measures, including regular exercise, adequate nutrition, and the use of pharmacological agents, can help manage osteoporosis and reduce the risk of fractures.

**References**


**Action: Practice Points**

Reading is only one way to do CPD and the Society will expect to see various approaches to CPD in a pharmacist’s portfolio.

1. Identify patients from your own patient medication records who may be at risk of falling and give them a home safety check list. Various checklists are available on the internet (e.g., www.campaignforhomepharmacy.org.uk).


3. Review how co-located community pharmacies in your area are contributing to falls prevention.

The revised framework is expected to be published this autumn. Research governance is a system of quality assurance and safety checks that enables the regulation of pharmacist’s conducting research on health (including pharmacy practice research). This article outlines the key principles by which pharmacy practice researchers will need to familiarise themselves with the revised framework.

**NSF Milestones**

By April 2003, local health care providers (including the independent sector) should have their procedures and put in place local risk management plans to reduce the risk of older people falling. In April 2004, the HPA and the relevant local authority should be involved in the development of an integrated falls service. By 2005, all health and social care systems should have established this service.

**Action: Practice Points**

1. Encourage your patients to undertake one or more of the following:
   - Publicise the revised framework.
   - Ensure appropriate use of medication for osteoporosis.
   - Review the medication of patients who have fallen.
   - Promote a healthy lifestyle.

Risks are commonly expressed in “E-scores”. Healthy young women have E-scores between 2.2 to 2.8 and post-menopausal women have E-scores between 2.5 to 2.7. Those women with E-scores between 2.5 and 2.7 have been identified as those at risk of osteoporosis.

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Panel 1: Outline of Research Governance Framework for Health and Social Care

- Research governance sets standards
- Research governance promotes sound research
- Research governance requires reporting and ensuring lessons are learnt
- Research governance promotes good practice
- Research governance requires research quality and safety
- Research governance protects patients

Panel 2: Areas to which the framework must be applied within pharmacy research

- Undergraduate (MPharm project)
- Postgraduate master’s degree projects
- PhD projects
- Service evaluations involving patients or NHS staff
- NHS staff research

Glossary

LREC Local research ethics committees are convened to provide independent advice to researchers, funders, sponsors, employers, care organisations and professionals on the extent to which proposals for research are ethically acceptable. LREC covers a geographical area similar to that of the old health authorities.

MREC Multi-centre research ethics committees are the committees convened to provide independent advice about research taking place within the boundaries of one or more research sites (see below).

COREG Core Ethics Committees (see above) are chaired by an independent chair. COREG advises on applications that include co-ordinating the development of operational systems for LREC and carrying out regular reviews of the operation of the ethical review system in England, managing the MREC in England, and implementing and maintaining consistent operating procedures and standards. 

OIREC Regional research ethics committees have been established and are managed by COREG to oversee the activity of LREC.

LREC The geographical area covered by one health authority, whether it is a hospital or a community trust.

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...
Panel 3: Key elements of a quality research culture

- Respect for participants’ dignity, rights, safety and well-being
- Valuing the diversity of personal and cultural integrity
- Leadership
- Accountability
- Openness
- Clear and supportive management

reports to inform the research participants of the findings and their implications.

Many small-scale student research projects are conducted because they are easy and cheap. The necessary recruitment of research participants does not pose any problems. Once completed, the research report that language is a shelf, never to be read again. People choose to take part in research for a variety of reasons, including that they believe it will be of the “greater good”. It is no longer acceptable to ask people to devote their time and energy to providing us with data, which is not then disseminated to people that “greater good” should be achieved.

Responsibilities and authorities

The framework document details the responsibilities of all participants in the research process, be it researchers themselves to their managers, the research sponsors and the funding agencies. The research sponsor had a sponsor by March 2003. The research sponsor has the responsibility for ensuring its compliance with the standards outlined above. For research into funded at an earlier stage, the research sponsors have the responsibility to ensure that the conditions, the funding bodies were concerned about the lack of clarity about what they were expected to the Human Rights Act. The protocol has been an essential component of the identification for the identification of a systematic bias leading to an association between the sponsor of the research and the 2nd edition of the framework.

DELIVERY SYSTEM, MONITORING AND INSPECTION

Organizations undertaking, sponsoring, funding or hosting pharmacy practice research must ensure that the standards of this framework are being systematically followed. In addition, systems should be able to identify problems and deviations, via routine and random monitoring and auditing. The research and quality assurance teams can now systems in place to ensure that they know about and the sponsors are informed about all relevant research.

Currently, most trusts have separate services for researchers to use to inform the necessary people about their project, in order to get management and financial support. When the new electronic form becomes available, this will be much more streamlined, using a separate section of the overall form.

Adherence to this framework of research governance must be demonstrated for all pharmacists. When the framework is developed, pharmacists will be no different from other health care researchers in having access to the current and new tools for monitoring and auditing. The Department of Health monitors systems to be put in place, to deal with unacceptable research standards. In particular, monitoring will check systems are in place to detect and investigate possible research fraud, such as falsification of data.

In conclusion, the framework十条 the standards set out in the existing guidelines or legislation are clear.

However, other parts of this framework, such as the framework’s reporting of a development quality research culture (Panel 3) within organizations where research takes place (such as hospital or primary care trusts). A quality research culture is considered essential for proper research governance; promotion of its principles and values must be prioritized.

Conclusions

The most important implication of the research governance framework is that all the pharmacy practice research that we do will now need ethics committee approval. If we also had gained ethical approval from the relevant trusts. This will mean that research governance will be better, and that we will record any unplanned research and prevent the conduct of poorly designed or unethical research. However, for pre-registration or undergraduate projects, this planning means that supervisors who have to prepare the research protocol and ethics application, probably with the help of the supervisor, can be more effectively involved in the activities that make the project successful.

During the next couple of years, the European Commission’s desire to set minimal and ethical standards, for example, that the ethical standards set for research ethics, but what lack of informed consent is potentially confusing for pharmacists and other health professionals, as well as for the public. Such safeguard to the interest of patients in the research and has suggested that the World Health Organization sets harmonised levels between countries. During the next couple of years, the European Commission has drawn up a document to set minimum standards — not for vitamin and mineral intake per se, but for permissible levels for convenience, to set targets and guidance on some (eg, vitamin C and iron) is still to come. The report from the UK’s EPS group is the most recent, although other authorities, for example, the European Society for Human Genetics, are working on the same issue.

How are the figures set?

Basically, the EPS group, the CFP and the FNB all used similar methodology to set their upper safety limits. This involved four main stages:

- Exposure assessment
- Risk characterisation
- Hazard identification
- Hazard characterisation

N-of-AEAL is “the no observed adverse effect level”, ie the highest intake of a nutrient at which no adverse effects have been observed. The NOAEL is set at 200μg of vitamin B6 because according to its interpretation of the literature, this is the highest intake level for which no peripheral neuropathy has been observed.

LOEL is the “lowest observed adverse effect level”, the lowest intake of a nutrient at which an adverse effect has been demonstrated. For example, the UK set a LOEL of 20mg for betacarotene because it considered this to be the lowest intake of betacarotene where an increased risk of cancer has been observed in smokers.

Uncertainty factor An uncertainty factor is used inextricably with, for example, extrapolating data from:

- Animals to humans a large uncertainty factor is applied if it is believed that animal data underpredict average human responses to a nutrient.
- Studies involving few subjects to the general population
- Subsections of the population (eg, individuals with a disease of a particular age group) to the general, healthy population