

A NATIONAL CONTRACT ON CANCER

General Note: Nearly all studies of the impact of interventions designed to reduce exposure to carcinogens or to reduce the effect of these carcinogens have used surrogate short-term measures such as smoking rates and consumption of fruit and vegetables, rather than examining their impact on cancer prevalence or mortality. Given the long-term nature of the effect of such interventions on cancer rates, it seems unlikely that anything but surrogate end-points will be available in the immediate future.

CANCER: Social and economic interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
Government and National Players can:		
C1 Increase tax on cigarettes by 5 per cent in real terms each year	<p>Tobacco consumption is associated with lung cancer,^a laryngeal cancer,^b oral cancer,^c oesophageal and gastric cancer^d and may be associated with cervical cancer^e and some types of leukaemia.^f A reduction in population levels of smoking may contribute to a lower incidence of lung, laryngeal and oral cancer.</p> <p>Taxation and similar fiscal and legislative measures can be used alongside interventions aimed at individuals to reduce cigarette consumption. Higher cigarette prices reduce cigarette consumption.^g However, the effect of increasing prices differs across demographic groups, a more marked reduction in consumption is shown with increasing price amongst women and young people.^a In the poorest groups, an increase in price produces significant hardship for those who do not curtail their consumption.^h</p> <p>No systematic reviews have been identified examining the effect on cancer rates of increasing tax on cigarettes.</p>	<p>a. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>b. Cattaui MS, Maisonneuve P, Boyle P. Epidemiology of laryngeal cancer. <i>European Journal of Cancer – B-Oral Oncology</i> 1996;2B:293-305.</p> <p>c. La Vecchia C, Tavani A, Franceschi S, Levi F, Corrao G, Negri E. Epidemiology and prevention of oral cancer. <i>Oral Oncology</i> 1997;33:302-12.</p> <p>d. Trédaniel J, Boffetta P, Buiatti E, Saracci R, Hirsch A. Tobacco smoking and gastric cancer: review and meta-analysis. <i>International Journal of Cancer</i> 1997;72:565-73.</p> <p>e. Licciardone JC, Brownson RC, Chang JC, Wilkins JR 3rd. Uterine cervical cancer risk in cigarette smokers: a meta-analytic study. <i>American Journal of Preventative Medicine</i> 1990;6:274-81.</p> <p>f. Brownson RC, Novotny TE, Perry MC. Cigarette smoking and adult leukemia. A meta-analysis. <i>Archives of Internal Medicine</i> 1993;153:469-75.</p> <p>g. Chaloupka FJ, Wechsler H. Price, tobacco control policies and smoking among adults. <i>Journal of Health Economics</i> 1997;6:359-73.</p> <p>Choi BCK, Ferrence RG, Pack AWP. Evaluating the effects of price on the demand for tobacco products: review of methodologies and studies. Ontario Tobacco Research Unit, 1997.</p> <p>NHS Executive. Guidance on commissioning cancer</p>

CANCER: Social and economic interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C2 End advertising and promotion of cigarettes	<p>Control of advertising is an effective intervention to place alongside interventions aimed at individuals to help reduce cigarette consumption.^a</p> <p>The ideal choice of policy for controlling advertising is to reduce the level of advertising and increase the level of counteradvertising. Research suggests that advertising bans lead to media substitution so a total ban on all forms of cigarette promotion is needed if bans are to be successful.^b</p> <p>No systematic reviews have been identified examining the impact of changes in tobacco advertising on cancer rates.</p>	<p>services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>h. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998. Townsend J. Price and consumption of tobacco. British Medical Bulletin 1996;52:132-42.</p> <p>a. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998. Smee C. Tobacco advertising and smoking: a discussion document. London: Department of Health, 1993. Sone T. Effects of tobacco advertising regulations in various countries. Nippon Koshu Eisei Zasshi 1995;42:1017-28.</p> <p>b. Saffer H. Economic issues in cigarette and alcohol advertising. Journal of Drug Issues 1998;28:781-93.</p>
C3 Prohibit sale of cigarettes to youngsters and ensure enforcement	<p>Interventions aimed at retailers to enforce the legal age limit on selling cigarettes to young people reduces their access to cigarettes but no evidence has been found that shows this affects smoking behaviour.^a</p> <p>Restricting access to cigarette vending machines limits access, but has not been shown to affect behaviour.^a Stronger regional, national and international strategies are required if restriction of youth access is to contribute to a reduction in smoking prevalence in this age group. Targeting retailers with educational programmes alone is less effective than combined education and enforcement (warnings or visits by police or health officials), but sustained effects require enforcement at least 4-6 times a year.^b</p> <p>No systematic reviews have been identified examining prohibition of tobacco sales to youngsters and subsequent cancer rates.</p>	<p>a. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998. US Department of Health and Human Services. Preventing tobacco use among young people: a report of the Surgeon General. Atlanta, 1994.</p> <p>b. Lancaster T, Stead LF. Interventions for preventing tobacco sales to minors [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>
C4 Seek to ensure cheaper supplies of fruit and vegetables	<p>Consumption of fresh fruit and vegetables is associated with a lower incidence of many cancers.^a</p> <p>No systematic reviews have been identified examining reducing the cost of fruit and vegetables and subsequent cancer rates.</p>	<p>a. American Institute for Cancer Research. Food Nutrition and the prevention of cancer. World Cancer Research Fund, 1997.</p> <p>Working Group on Diet and Cancer of the Committee on Medical Aspects of Food and Nutrition policy. Nutritional aspects of the development of cancer. Department of Health, 1998.</p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C5	Tackle joblessness, social exclusion, low educational standards and other factors which will make it harder to live a healthy life	<p>There are consistent social class gradients in the incidence and outcomes of most cancers.^a</p> <p>No systematic reviews have been identified examining the effects of interventions to improve social circumstances on subsequent cancer rates.</p>	<p>a. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p>
Local Players and Communities can:			
C6	Tackle social exclusion in the community to make it easier for people to make healthy decisions	<p>Cancer is more common among the socially disadvantaged and there tends to be a stepwise relationship with socio-economic status.^a Similarly risk factors are more common in more disadvantaged groups.^b For cancers of the colon, rectum, breast and cervix, patients from higher socio-economic status groups have better survival.^c</p> <p>No systematic reviews have been identified examining the effects of reducing social exclusion on cancer rates or survival.</p>	<p>a. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>b. Macintyre S. Socioeconomic variations in Scotland's health: a review. <i>Health Bulletin</i> 1994;52:456-71.</p> <p>c. Schrijvers CT, Mackenbach JP. Cancer patient survival by socioeconomic status in seven countries: a review for six common cancer sites. <i>Journal of Epidemiology and Community Health</i> 1994;48:441-6.</p>
C7	Work with deprived communities and with businesses to ensure a more varied and affordable choice of food (including fruit and vegetables)	<p>Consumption of fresh fruit and vegetables is associated with a lower incidence of many cancers. However, there is little direct evidence to suggest that available interventions are successful in promoting dietary change in this context.^a A systematic review of 15 studies of community intervention programmes in school children, adolescents and adults found the most successful interventions for increasing fruit and vegetable consumption were those that were part of a multi-component programme. Successful interventions also included education directed at behavioural change, were over a longer time period with multiple contacts made with participants, and where the message was specifically targeted to fruit and vegetables rather than nutrition in general.^b</p> <p>No systematic reviews have assessed the effect of increasing fruit and vegetable intake on cancer rates.</p> <p>There is no convincing evidence that specific anti-oxidant micronutrients, such as selenium and Vitamins C and E, or any other specific nutrients, are protective against cancer. Some supplementation, such as the addition of beta carotene to the diet, may be harmful.^c</p>	<p>a. American Institute for Cancer Research. Food Nutrition and the prevention of cancer. World Cancer Research Fund, 1997.</p> <p>Working Group on Diet and Cancer of the Committee on Medical Aspects of Food and Nutrition policy. Nutritional aspects of the development of cancer. Department of Health, 1998.</p> <p>b. Ciliska D, Miles E, O'Brien M, Turl C, Tomasik H, Donovan U, Beyers J. The effectiveness of community interventions to increase fruit and vegetable consumption in people four years of age and older. Ontario Public Health Research Education and Development Programme. Effective Public Health Practice Project. March 1999.</p> <p>c. American Institute for Cancer Research. Food Nutrition and the prevention of cancer. World Cancer Research Fund, 1997.</p> <p>NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>Working Group on Diet and Cancer of the Committee on Medical Aspects of Food and Nutrition policy. Nutritional aspects of the development of cancer. Department of Health, 1998.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
People can:		
<p>C8 Participate in social networks and provide social support to others to reduce stress, and to give them help to give up smoking</p>	<p>There is some evidence that community interventions help prevent smoking in young people.^a</p> <p>A systematic review of community interventions for reducing smoking in adults is underway.^b</p> <p>There are no systematic reviews of the effects of community interventions on the prevalence of cancer.</p>	<p>a. Sowden A, Arblaster L. Community interventions for preventing smoking in young people [Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000</i>. Oxford: Update Software.</p> <p>b. Secker-Walker R. Community interventions for reducing smoking among adults [Protocol for a Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000</i>. Oxford: Update Software.</p>
<p>C9 Take opportunities to better their lives and their families' lives through education, training and employment</p>	<p>No systematic reviews have been identified on the effects of "bettering peoples lives" on subsequent cancer rates.</p>	

CANCER: Environmental interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>Government and National Players can:</p>		
<p>C10 Encourage employers and others to provide a smoke-free environment for non-smokers</p>	<p>Environmental tobacco smoke is associated with an increased incidence of lung cancer and respiratory problems.^a The evidence for a direct causal link between non-residential smoking and a broad range of cancers, remains equivocal.^b Controlling non-residential environmental tobacco smoke is likely to have a modest effect on cancer rates.^c</p> <p>Work place tobacco policies can reduce tobacco consumption at work and worksite environmental tobacco smoke exposure.^d</p> <p>No systematic reviews have been identified which examine the effects of reducing environmental tobacco smoke on cancer rates.</p>	<p>a. Hackshaw AK, Law MR, Wald MJ. The accumulated evidence on lung cancer and environmental tobacco smoke. <i>BMJ</i> 1997;315:980-8.</p> <p>b. Copas JB, Shi JQ. Reanalysis of epidemiological evidence on lung cancer and passive smoking. <i>BMJ</i> 2000;320:417-8.</p> <p>c. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>d. Erikson MP, Gottlieb NH. A review of the health impact of smoking control at the workplace. <i>American Journal of Health Promotion</i> 1998;13:83-104.</p> <p>Fielding JE. Smoking control in the workplace. <i>Annual Review of Public Health</i> 1991;12:209-34.</p>
<p>C11 Encourage local action to tackle radon in the home and to eliminate risk factors in the workplace (eg enforcing regulations on asbestos and encouraging provision of non-smoking areas) and the environment (eg air pollutants)</p>	<p>Exposure to radon gas is associated with increased mortality from lung cancer in high-risk groups, such as some miners, and there is an association between exposure to naturally occurring radiation from radon gas and lung cancer.^a</p> <p>Measures which can reduce risk of exposure to indoor radon include informing people of known associations between radon and cancer and encouraging residents in areas with high radon levels to have radon concentrations measured in their homes. If levels are high, owners of affected homes can be encouraged to have remedial work undertaken and local authority grants can be provided for this work.^b</p> <p>The potential risks from radon in the home continue to be estimated indirectly through studies on miners, so the risk from domestic radon should be interpreted with caution until further studies are completed.^c</p> <p>No systematic reviews have been identified examining the effect of reducing radon in the home on the risk of developing lung cancer.</p>	<p>a. Lubin JH, Tomasek L, Edling C, Hornung RW, Howe G, Kunz E, Kusiak RA, Morrison HI, Radford EP, Samet JM, Timarche M, Woodward A, Yao SX. Estimating lung cancer mortality from residential radon using data for low exposures of miners. <i>Radiation Research</i> 1997;147:126-34.</p> <p>Stidley CA, Samet JM. A review of ecologic studies of lung cancer and indoor radon. <i>Health Physiology</i> 1993;65:234-510.</p> <p>Darby SC, Whitley E, Howe GR, Hutchings SJ, Kusiak RA, Lubin JH, Morrison HI, Tirmarche M, Tomasek L, Radford EP. Radon and cancers other than lung cancer in underground miners: a collaborative analysis of 11 studies. <i>Journal of the National Cancer Institute</i> 1995;87:378-84.</p> <p>b. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>c. Lubin JH, Boice JD Jr. Lung cancer risk from residential radon: meta-analysis of eight epidemiologic studies. <i>Journal of the National Cancer Institute</i> 1997;89:49-57.</p>

CANCER: Environmental interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C12 Continue to press for international action to restore the ozone layer</p>	<p>The incidence of skin cancer has been increasing in the UK in recent years. The majority of skin cancers occur as a result of overexposure to ultraviolet light from the sun or an artificial source such as a sunbed, and are therefore preventable.</p> <p>Preventative measures, such as sunscreens, are effective in avoiding overexposure of the skin to sunlight and may reduce the incidence of skin cancer. However, while health education programmes enhance knowledge of skin cancer, evidence that they change behaviour is very weak.^a</p> <p>No systematic reviews have been identified which examine the effect of reducing skin exposure to ultraviolet light on subsequent rates of skin cancer.</p>	<p>a. Harvey I. Prevention of skin cancer: a review of available strategies. University of Bristol Health Care Evaluation Unit, 1995.</p>
Local Players and Communities can:		
<p>C13 Through local employers, make a smoke free environment the norm, with adequate separate provision for smokers and availability of smoke extractors where possible</p>	<p>Environmental tobacco smoke is associated with an increased incidence of lung cancer and respiratory problems.^a The evidence of a direct causal link between non-residential smoking and a broad range of cancers however, remains equivocal.^b Controlling non-residential environmental tobacco smoke is likely to have a modest effect on cancer rates.^c No systematic reviews have been identified which examine the effects of reducing environmental tobacco smoke on cancer rates.</p> <p>Whilst daily consumption of cigarettes at work can be reduced by employers encouraging a smoke-free work environment, there is evidence that smokers compensate by smoking more during non-working hours.^d A total ban on cigarettes in the workplace coupled with monetary incentives to quit has been shown to improve cessation rates substantially.^d</p> <p>No systematic reviews have been identified which examine the effect of introducing these policies on the incidence of lung or other cancers.</p>	<p>a. Hackshaw AK, Law MR, Wald MJ. The accumulated evidence on lung cancer and environmental tobacco smoke. <i>BMJ</i> 1997;315:980-8.</p> <p>b. Copas JB, Shi JQ. Reanalysis of epidemiological evidence on lung cancer and passive smoking. <i>BMJ</i> 2000;320:417-8.</p> <p>c. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>d. Chapman S, Borland R, Scollo M, Brownson RC, Dominello A, Woodward S. The impact of smoke-free workplaces on declining cigarette consumption in Australia and the United States. <i>American Journal of Public Health</i> 1999;89:1018-23.</p> <p>Fielding JE. Smoking control at the workplace. <i>Annual Review of Public Health</i> 1991;12:209-34.</p> <p>NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p>
<p>C14 Tackle radon in the home (eg through direct advice from local authorities to affected householders) (<i>cont</i>)</p>	<p>Exposure to radon gas is associated with increased mortality from lung cancer in high-risk groups, such as some miners, and there is an association between exposure to naturally occurring radiation from radon gas and lung cancer.^a</p> <p>Measures which can reduce risk of exposure to indoor radon include informing people of known associations between radon and cancer and encouraging</p>	<p>a. Lubin JH, Tomasek L, Edling C, Hornung RW, Howe G, Kunz E, Kusiak RA, Morrison HI, Radford EP, Samet JM, Timarche M, Woodward A, Yao SX. Estimating lung cancer mortality from residential radon using data for low exposures of miners. <i>Radiation Research</i> 1997;147:126-34.</p> <p>Stidley CA, Samet JM. A review of ecologic studies of</p>

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C14	<p>(cont) Tackle radon in the home (eg through direct advice from local authorities to affected householders)</p>	<p>residents in areas with high radon levels to have radon concentrations measured in their homes. If levels are high, owners of affected homes can be encouraged to have remedial work undertaken and local authority grants can be provided for this work.^b</p> <p>The potential risks from radon in the home continue to be estimated indirectly through studies on miners so the risk from domestic radon should be interpreted with caution until further studies are completed.^c</p> <p>No systematic reviews have been identified examining the effect of reducing radon in the home on the risk of developing lung cancer.</p>	<p>lung cancer and indoor radon. <i>Health Physiology</i> 1993;65:234-510.</p> <p>Darby SC, Whitley E, Howe GR, Hutchings SJ, Kusiak RA, Lubin JH, Morrisson HI, Tirmarche M, Tomasek L, Radford EP. Radon and cancers other than lung cancer in underground miners: a collaborative analysis of 11 studies. <i>Journal of the National Cancer Institute</i> 1995;87:378-84.</p> <p>b. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>c. Lubin JH, Boice JD Jr. Lung cancer risk from residential radon: meta-analysis of eight epidemiologic studies. <i>Journal of the National Cancer Institute</i> 1997;89:49-57.</p>
People can:			
C15	<p>Protect others from second hand smoke and children from sunburn</p>	<p><u>Passive smoking:</u></p> <p>A reduction in exposure to passive smoking in the home may be effective in protecting the health of children.^a A systematic review on family/carer smoking control programmes for reducing children's exposure to environmental tobacco smoke is in preparation.^b</p> <p>Pre-natal counselling, which incorporates smoking cessation advice in the form of written materials and continued health professional contact maintained throughout pregnancy, can reduce the incidence of low birthweight.^c</p> <p><u>Sunburn:</u></p> <p>The incidence of skin cancer has been increasing in the UK in recent years. The majority of skin cancers occur as a result of overexposure to ultraviolet light from the sun or an artificial source such as a sunbed, and are therefore preventable.</p> <p>There is evidence that preventive measures, such as sunscreens, are effective in avoiding overexposure of the skin to sunlight and may reduce the incidence of skin cancer. However, while health education programmes enhance knowledge of skin cancer, evidence that they change behaviour is very weak.^d</p>	<p>a. Hackshaw AK, Law MR, Wald MJ. The accumulated evidence on lung cancer and environmental tobacco smoke. <i>BMJ</i> 1997;315:980-8.</p> <p>NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>Uberla K. Lung cancer from passive smoking: hypothesis or convincing evidence? <i>International Archives of Occupational and Environmental Health</i> 1987;59:421-37.</p> <p>b. Waters E, Campbell R, Webster P, Spencer N. Family and carer smoking control programmes for reducing children's exposure to environmental tobacco smoke [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software</p> <p>c. Agency for Health Care Policy and Research. Smoking Cessation. Clinical Practice Guideline, 1996. Lumley J, Oliver S, Waters E. Interventions for promoting smoking cessation during pregnancy [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>d. Harvey I. Prevention of skin cancer: a review of available strategies. University of Bristol Health Care Evaluation Unit, 1995.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
Government and National Players can:		
<p>C16 Develop healthy living centres</p>	<p>Despite suggested benefits of community wellness programmes, current evidence is inconclusive.^a Studies of community action for health promotion have not been methodologically sound.^b</p> <p>No systematic reviews were found examining the impact of such centres on cancer rates.</p>	<p>a. Watt D, Verma S, Flynn L. Wellness programs: a review of the evidence. <i>Canadian Medical Association Journal</i> 1998;158:224-30.</p> <p>b. Hancock L, Sanson-Fisher R W, Redman S, Burton R, Burton L, Butler J, Girgis A, Gibberd R, Hensley M, McClintock A, Reid A, Schofield M, Tripodi T, Walsh R. Community action for health promotion: a review of methods and outcomes 1990-1995. <i>American Journal of Preventive Medicine</i> 1997;13:229-39.</p>
<p>C17 Fund health education campaigns to provide reliable and objective information on the health risks of smoking, poor diet and too much sun (<i>cont</i>)</p>	<p>Simple provision of information/education about the health risks of smoking, poor diet and too much sun improves knowledge but has little effect on changing health-related behaviour. Health education campaigns which provide information but no additional interventions are only effective in altering the behaviour of higher status socio-economic groups. Programmes providing information together with personal support can be used to change behaviour across all socio-economic groups.^a</p> <p><u>Alcohol intake:</u></p> <p>Alcohol consumption at presently recommended levels has not been shown to be associated with increased risk of cancer,^b however, consumption at higher levels is associated with cancers of the mouth, larynx and oesophagus.^c There is also a link with breast cancer and a possible link with colorectal cancer.^d</p> <p>No systematic reviews have been identified assessing the effects of reducing alcohol consumption on cancer rates.</p> <p><u>Fruit and vegetables/fibre and whole-grain intake:</u></p> <p>Greater fruit and vegetable consumption is associated with a lower incidence of cancers of the stomach, oesophagus, lung, oral cavity and pharynx, endometrium, pancreas and colon. Raw vegetables appear to offer the most protection.^e There is also some evidence to suggest that a high intake of dietary fibre is associated with a reduced risk of colon cancer.^f Evidence supports the hypothesis that whole-grain intake protects against various cancers.^g</p> <p>Community intervention programmes in school children, adolescents and</p>	<p>a. Gepkens A, Gunning-Schepers LJ. Interventions to reduce socioeconomic health differences: A review of the international literature. <i>European Journal of Public Health</i> 1996;6:218-26.</p> <p>NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998</p> <p>b. Chhabra SK, Souliotis VL, Kyrtopoulos SA, Anerson LM. Nitrosamines, alcohol and gastrointestinal tract cancer: recent epidemiology and experimentation. <i>In Vivo</i> 1996;10:265-84.</p> <p>Hiatt RA. Alcohol consumption and breast cancer. <i>Medical Oncology and Tumour Pharmacotherapy</i> 1990;7:143-51.</p> <p>Holman CD, English DR, Milne E, Winter MG. Meta-analysis of alcohol and all-cause mortality: A validation of NHMRC recommendations. <i>Medical Journal of Australia</i> 1996;164:141-5.</p> <p>Longnecker MP, Orza MJ, Adams ME, Vioque J, Chalmers TC. A meta-analysis of alcoholic beverage consumption in relation to risk of colorectal cancer. <i>Cancer Causes and Control</i> 1990;1:59-68.</p> <p>Longnecker MP. Alcoholic beverage consumption in relation to risk of breast cancer: Meta-analysis and review. <i>Cancer Causes and Control</i> 1994;5:73-82.</p> <p>c. Holman CD, English DR, Milne E, Winter MG. Meta-analysis of alcohol and all-cause mortality: A validation of NHMRC recommendations. <i>Medical Journal of Australia</i> 1996;164:141-5.</p> <p>d. Longnecker MP. Alcoholic beverage consumption in relation to risk of breast cancer: Meta-analysis and</p>

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C17 (cont) Fund health education campaigns to provide reliable and objective information on the health risks of smoking, poor diet and too much sun (cont)

SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE

adults found the most successful interventions for increasing fruit and vegetable consumption were those that were part of a multi-component programme. Successful interventions included education directed at behavioural change, were over a longer time period with multiple contacts made with participants, and used a message specifically targeted to fruit and vegetables rather than nutrition in general.^h

Body mass/Physical activity/Dietary fat intake:

There is a modest inverse association between body mass index and the risk of breast cancerⁱ and also some evidence that exercise is associated with a reduced risk of early onset breast cancer.^j Research has shown that women are much less physically active than men.^k

Dietary fat reduction can result in a lowering of serum oestradiol levels and may offer an approach to breast cancer prevention.^l

A review on low fat diets for reducing obesity is underway.^m

No systematic reviews have been identified relating interventions to reduce dietary fats/obesity/increase physical activity and cancer rates.

Other dietary factors:

No association has been detected between artificial sweetener consumption and bladder cancer in humans even though saccharin has been found to be carcinogenic in rats.ⁿ

No association between a high intake of linoleic acid and breast, colorectal or prostate cancer has been found in humans, despite animal experiments indicating that linoleic acid is required to promote growth of artificially induced tumors in rodents.^o

There is no support for the hypothesis that calcium protects against colorectal cancer^p or that a high coffee consumption protects against colorectal cancer.^q

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C17 (cont) Fund health education campaigns to provide reliable and objective information on the health risks of smoking, poor diet and too much sun

SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE

Sunlight exposure:

Skin cancer prevention campaigns are more likely to be effective if they aim to alter attitudes and beliefs not simply to provide information.^f

Smoking:

National media campaigns targeted at smokers can result in small reductions in the prevalence of smoking.^g Mass-media campaigns may be effective in preventing uptake of smoking among young people, but the intensity and duration of campaigns are important in determining their effects.^h

Interventions to reduce health-risk behaviours:

Didactic knowledge-based school-based intervention programmes have not been shown to be effective in reducing risky behaviours in adolescents (smoking/alcohol/drug abuse, sexual risk). Interactive programmes are more effective at changing behaviour than non-interactive ones. Interactive programmes based on social learning theory were most effective. While some programmes worked for some subgroups of youth, the effective programmes had modest effects overall.ⁱ

Community-based interventions to promote public awareness of environmental health risks and adoption of risk reduction measures can be effective, particularly for outcomes related to knowledge and attitude. The greatest positive behavioural shifts were associated with intensive interventions in which there were multiple events or means of delivery in various settings. However the limited variety of hazards that have been examined (primarily exposure to ultraviolet light or environmental tobacco smoke) and generally short follow-up times, limit the strength of this conclusion.^j

No systematic reviews of the impact of such interventions on cancer rates have been found.

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C18 Encourage research into ways to modify high-risk behaviours	No systematic reviews have been identified that assess the effects of behaviour modification on cancer rates.	v. Campbell M, Buckeridge D, Dwyer J, Fong S et al. Effectiveness of environmental awareness interventions. Ontario Public Health Research Education and Development Programme. Effective Public Health Practice Project, March 1999.
Local Players and Communities can:		
C19 Target health information on groups and areas where people are most at risk	No systematic reviews have been identified that examine targeting health information on at-risk groups on cancer rates.	<p>a. Agency for Health Care Policy and Research. Smoking Cessation. Clinical Practice Guideline, 1996.</p> <p>b. Agency for Health Care Policy and Research. Smoking Cessation. Clinical Practice Guideline, 1996.</p> <p>Erikson MP, Gottlieb NH. A review of the health impact of smoking control at the workplace. American Journal of Health Promotion 1998;13:83-104.</p> <p>NHS Centre for Reviews and Dissemination. Preventing the uptake of smoking in young people. Effective Health Care 1999;5(5).</p> <p>c. Thomas R, Busby K. School based programmes for preventing smoking [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>d. Blair A, Zahm SH. Agricultural exposures and cancer. Environmental Health Perspectives 1995;103:205-8.</p> <p>Keller-Byrne JE, Khuder SA, Schaub EA. Meta-analyses of prostate cancer and farming. American Journal of Industrial Medicine 1997;31:580-6.</p> <p>Khuder SA, Mutgi B. Meta -analyses of multiple myeloma and farming. American Journal of Industrial Medicine 1997;32:510-6.</p> <p>e. Khuder SA, Mutgi AB, Schaub EA, Tano BD. Meta-analysis of Hodgkin's disease among farmers. Scandinavian Journal of Work, Environment and Health 1999;25:436-41.</p>
C20 Encourage the development of healthy workplaces and healthy schools (<i>cont</i>)	<p><u>Smoking:</u></p> <p>Multi-component workplace smoking cessation programmes are effective.^a</p> <p>Smoking cessation group programmes are more effective than minimal treatment schemes.^b</p> <p>Workplace tobacco policies can reduce cigarette consumption at work.^b</p> <p>School-based programmes that use social reinforcement techniques (and not simply education or information) have been shown to prevent the uptake of smoking among children.^b A review assessing school based programmes for preventing smoking is in progress.^c</p> <p>No systematic reviews have examined the effects on cancer rates of programmes to discourage smoking at school/work.</p> <p><u>Potential occupational carcinogens:</u></p> <p><u>Agricultural occupations:</u></p> <p>Farmers are at increased risk of various cancers.^d Findings suggest a slight increase of risk of developing Hodgkin's disease in male farmers from exposure to infectious micro-organisms, herbicides and insecticides.^e Similar exposure to micro-organisms or pesticides might be a risk factor for non-Hodgkin's lymphoma among farmers.^f Although one review of 37 studies of</p>	

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C20 (cont) Encourage the development of healthy workplaces and healthy schools (cont)

SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE

farmers found an increase in lip cancer but not other cancers.^g

There is debate over the relationship between formaldehyde exposure and nasopharyngeal cancer.^h

Industrial occupations:

National surveillance programmes have reported high rates of respiratory cancer in asbestos workers,ⁱ although there is wide variability of the association between occupational asbestos and lung cancer. Mesothelioma deaths showed a dose-response effect and an association with laryngeal cancer has been found.^j Interventions now to reduce asbestos exposure may reduce the incidence of lung cancers over the long term.^k

There is an association between substantial exposure to diesel exhaust and lung cancer.^l

There is evidence that those working in wood-related industries are at an increased risk of nasopharyngeal cancer, multiple myeloma and sinonasal cancer.^m

There is an increased risk of cancer of larynx, rectum, pancreas, skin, scrotum and bladder in workers exposed to metal working fluids in industrial machining and grinding operations.ⁿ Workers with stainless steel are at increased risk of lung cancer.^o

There is an association between silicosis and lung cancer.^p

There is weak evidence of a link between working as a painter and risk of cancer.^q

There is weak evidence of increased risk for asphalt workers and roofers of a number of cancers.^r

There is an association between lung cancer among shipyard, mild steel and stainless steel welders and exposure to hexavalent chromium and nickel, but this may be explained by asbestos exposure and smoking.^s

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C20 (cont) Encourage the development of healthy workplaces and healthy schools</p>	<p>There is some association between heavy exposure to lead and stomach and lung cancer but this association may also be explained by smoking and poor dietary habits.^t</p> <p>No association was found between working with acrylonitrile and cancer.^u</p>	<p>of workers in wood-related industries. <i>Scandinavian Journal of Work Environment and Health</i> 1995;21:179-90.</p> <p>Fielding JE. Smoking control at the workplace. <i>Annual Review of Public Health</i> 1991;12:209-34.</p> <p>n. Calvert GM, Ward E, Schnorr TM, Fine LJ. Cancer risks among workers exposed to metalworking fluids: a systematic review. <i>American Journal of Industrial Medicine</i> 1998;33:282-92.</p> <p>o. Moulin JJ. A meta-analysis of epidemiologic studies of lung cancer in welders. <i>Scandinavian Journal of Work Environment and Health</i> 1997;23:104-13.</p> <p>p. Smith AH, Lopipero PA, Barroga VR. Meta-analysis of studies of lung cancer among silicotics. <i>Epidemiology</i> 1995;6:617-24.</p> <p>q. Chen R, Seaton A. A meta-analysis of painting exposure and cancer mortality. <i>Cancer Detection and Prevention</i> 1998;22:533-9.</p> <p>r. Partanen T, Boffetta P. Cancer risk in asphalt workers and roofers: review and meta-analysis of epidemiologic studies. <i>American Journal of Industrial Medicine</i> 1994;26:721-40.</p> <p>s. Sjogren B, Hansen KS, Kjuus H, Persson PG. Exposure to stainless steel welding fumes and lung cancer: a meta-analysis. <i>Occupational and Environmental Medicine</i> 1994;51:335-6.</p> <p>t. Fu H, Boffetta P. Cancer and occupational exposure to inorganic lead compounds: a meta-analysis of published data. <i>Occupational and Environmental Medicine</i> 1995;52:73-81.</p> <p>u. Collins JJ, Acquavella JF. Review and meta-analysis of acrylonitrile workers. <i>Scandinavian Journal of Work Environment and Health</i> 1998;24:71-80.</p>
<p>People can:</p>		
<p>C21 Stop smoking, increase consumption of fruit, vegetables, and dietary fibre each day, avoid high consumption of red and processed meat, keep</p>	<p>A number of interventions are effective in promoting smoking cessation.^a These include nicotine replacement therapy (inhalers and patches appear to be slightly more effective than chewing gum);^b behaviour modification, combined with advice and social skills training;^c and encouragement and brief advice given by well trained GPs or other health professionals during routine</p>	<p>a. Law M, Tang JL. An analysis of the effectiveness of interventions intended to help people stop smoking. <i>Archives of Internal Medicine</i> 1995;155:1933-41.</p> <p>b. Henningfield JE. Nicotine medications for smoking cessation. <i>New England Journal of Medicine</i> 1995;333:1196-203.</p> <p>Silagy C, Mant D, Fowler G, Lancaster T. Nicotine</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
physically active, maintain a healthy body weight that does not increase during adult life (<i>cont</i>)	<p>consultations (which is particularly effective with more motivated patients).^d</p> <p>There is no evidence that silver acetate,^e aversion treatments,^f lobeline,^g acupuncture,^h anxiolytics or antidepressantsⁱ result in smoking cessation.</p> <p>Community intervention programmes in school children, adolescents and adults found the most successful interventions for increasing fruit and vegetable consumption were those that were part of a multi-component programme. Successful interventions also included education directed at behavioural change, were over a longer time period with multiple contacts made with participants, and used a message specifically targeted to fruit and vegetables rather than nutrition in general.^j</p> <p>Public health campaigns on diet, exercise and smoking are likely to be more effective if they take into account variations across cultural groups.^k</p>	<p>replacement therapy for smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>c. NHS Centre for Reviews and Dissemination. Smoking cessation: What can the Health Service do? Effectiveness Matters 1998;3(1).</p> <p>d. Law M, Tang JL An analysis of the effectiveness of interventions intended to help people stop smoking. Archives of Internal Medicine 1995;155:1933-41. NHS Centre for Reviews and Dissemination. Smoking cessation: What can the Health Service do? Effectiveness Matters 1998;3(1). Silagy C, Fowler G, Spiers I. Training health professionals to provide smoking cessation interventions. [Cochrane Review] In: The Cochrane Library, Issue 1,2000. Oxford: Update Software. Silagy C, Ketteridge S. Physician advice for smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>e. Lancaster T, Stead L. Silver acetate for smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>f. Hajek P, Stead LF. The effect of aversive smoking on smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1 2000. Oxford: Update Software.</p> <p>g. Stead LF, Hughes JR. Lobeline for smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>h. White AR, Rampes H. Acupuncture in smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>i. Hughes JR, Stead LF, Lancaster TR. Anxiolytics and antidepressants in smoking cessation. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>j. American Institute for Cancer Research. Food Nutrition and the prevention of cancer. World Cancer Research Fund, 1997. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C21 <i>(cont)</i> Stop smoking, increase consumption of fruit, vegetables, and dietary fibre each day, avoid high consumption of red and processed meat, keep physically active, maintain a healthy body weight that does not increase during adult life</p>		<p>Working Group on Diet and Cancer of the Committee on Medical Aspects of Food and Nutrition policy. Nutritional aspects of the development of cancer. Department of Health, 1998.</p> <p>Ontario Public Health Research Education and Development Programme. Effective Public Health Practice Project. The effectiveness of community interventions to increase fruit and vegetable consumption in people four years of age and older. March 1999.</p> <p>k. NHS Centre for Reviews and Dissemination.: Ethnicity and health: Reviews of literature and guidance for purchasers in the areas of cardiovascular disease, mental health and haemoglobinopathies. University of York: NHS Centre for Reviews and Dissemination, Report 5, 1996.</p>
<p>C22 Cover up in the sun.</p>	<p>The incidence of skin cancer has been increasing in the UK in recent years. The majority of skin cancers occur as a result of overexposure to ultraviolet light from the sun or an artificial source such as a sunbed, and are therefore preventable.</p> <p>There is evidence that preventive measures, such as sunscreens, are effective in avoiding overexposure of the skin to sunlight and may reduce the incidence of skin cancer. However, while health education programmes enhance knowledge of skin cancer, evidence of changed behaviour is very weak.^a</p> <p>It is not clear which interventions may be effective in reducing the risk of skin cancer from ionizing radiation. No systematic reviews have been identified assessing the effects of reducing skin exposure on rates of skin cancer.</p>	<p>a. Harvey I. Prevention of skin cancer: a review of available strategies. University of Bristol Health Care Evaluation Unit, 1995.</p>
<p>C23 Practice safer sex <i>(cont)</i></p> <p><i>(cont)</i> Practice safer sex</p>	<p>Several risk factors are known to be associated with the development of cervical cancer. The most significant is contact with the human papillomavirus (HPV). Condom use is likely to reduce the risk of HPV-related illness and also cervical cancer. When encouraging safer sexual behaviours; education on disease transmission, when combined with skill development, achieved a short-term increase in condom use. There is no evidence on whether the interventions produce lasting effects.^a</p>	<p>a. Shepherd J, Weston R, Peersman G, Napuli IZ. Interventions for encouraging sexual lifestyles and behaviours intended to prevent cervical cancer [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>

CANCER: Personal behaviour

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C23	No systematic reviews have been identified that examine the effects of interventions to encourage safer sex on cancer rates.	
C24 Follow sensible drinking advice	<p>There is no indication that alcohol consumption at presently recommended levels is associated with any increased risk of cancer,^a however, consumption at higher levels is associated with cancers of the mouth, larynx and oesophagus,^b and possibly link with breast cancer^c and colorectal cancer.^d</p> <p>There is no reliable evidence that any specific intervention programmes for alcohol misuse prevention in young people is effective in the long term.^e</p> <p>No systematic reviews have been identified assessing the effects of reducing alcohol consumption on cancer rates.</p>	<p>a. Chhabra SK, Souliotis VL, Kyrtopoulos SA, Anerson LM. Nitrosamines, alcohol and gastrointestinal tract cancer: recent epidemiology and experimentation. <i>In Vivo</i> 1996;10:265-84.</p> <p>Hiatt RA. Alcohol consumption and breast cancer. <i>Medical Oncology and Tumour Pharmacotherapy</i> 1990;7:143-51.</p> <p>Holman CD, English DR, Milne E, Winter MG. Meta-analysis of alcohol and all-cause mortality: A validation of NHMRC recommendations. <i>Medical Journal of Australia</i> 1996;164:141-5.</p> <p>Longnecker MP, Orza MJ, Adams ME, VioqueJ, Chalmers TC. A meta-analysis of alcoholic beverage consumption in relation to risk of colorectal cancer. <i>Cancer Causes and Control</i> 1990;1:59-68.</p> <p>Longnecker MP. Alcoholic beverage consumption in relation to risk of breast cancer: Meta-analysis and review. <i>Cancer Causes and Control</i> 1994;5:73-82.</p> <p>b. Holman CD, English DR, Milne E, Winter MG. Meta-analysis of alcohol and all-cause mortality: A validation of NHMRC recommendations. <i>Medical Journal of Australia</i> 1996;164:141-5.</p> <p>c. Longnecker MP. Alcoholic beverage consumption in relation to risk of breast cancer: Meta-analysis and review. <i>Cancer Causes and Control</i> 1994;5:73-82.</p> <p>d. Longnecker MP, Orza MJ, Adams ME, VioqueJ, Chalmers TC. A meta-analysis of alcoholic beverage consumption in relation to risk of colorectal cancer. <i>Cancer Causes and Control</i> 1990;1:59-68.</p> <p>e. Foxcroft DR, Lister-Sharp D, Lowe G. Alcohol misuse prevention for young people: a systematic review reveals methodological concerns and lack of reliable evidence of effectiveness. <i>Addiction</i> 1997; 92:531-7.</p>

CANCER: Services interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>Government and National Players can:</p>		
<p>C25 Encourage doctors, dentists, nurses and other health professionals to give advice on prevention (<i>cont</i>)</p>	<p>Patient education and counselling contribute to behaviour change for primary prevention of disease, some techniques, particularly self-monitoring, and using several communication channels, eg media plus personal communication, having the greatest effect.^a</p> <p><u>Advice on alcohol intake:</u></p> <p>Brief interventions in primary care, including assessment of alcohol intake and provision of information and advice, may be used to reduce alcohol consumption in those with consumption levels above recommended levels. Evidence suggests alcohol consumption can be reduced by up to 20% in people with raised alcohol consumption. Brief interventions are as effective as more expensive specialist treatment in this context.^b</p> <p><u>Advice on smoking cessation:</u></p> <p>Advice given by GPs can be effective in reducing smoking.^c Training health professionals increases the degree to which they offer anti-smoking interventions, and their effectiveness in doing so.^d</p> <p><u>Advice on weight reduction:</u></p> <p>There is evidence that health professionals can improve the organisation of care for obese people, and weight reduction may reduce the risk of breast and endometrial cancer as well as many other diseases.^e</p> <p><u>Advice on prevention and cancer rates:</u></p> <p>A review of methods to implement prevention in primary care is underway.^f Other reviews are examining the use of physician reminders in prevention.^g However no reviews have been identified that assess the effects of advice on prevention on cancer rates.</p> <p><u>Other areas of advice related to prevention:</u></p> <p>There is evidence of a small increase in the risk of breast cancer in women taking the oral contraceptive pill and for ten years after they cease to take it. This factor should be taken into account when making decisions about using</p>	<p>a. Mullen PD, Simons-Morton DG, Ramirez G, Frankowski RF, Green LW, Mains DA. A meta-analysis of trials evaluating patient education and counseling for three groups of preventive health behaviors. <i>Patient Education and Counseling</i> 1997;32:157-73.</p> <p>b. Kahan M, Wilson C, Becker L. Effectiveness of physician-based interventions with problem drinkers: a review. <i>Canadian Medical Association Journal</i> 1995;152:851-9.</p> <p>NHS Centre for Reviews and Dissemination. Brief interventions and alcohol use. <i>Effective Health Care</i> 1993;1(7).</p> <p>c. Silagy C, Ketteridge S. Physician advice for smoking cessation. [Cochrane Review] In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>d. Lancaster T, Silagy C, Fowler G, Spiers I. Training health professionals to provide smoking cessation interventions. [Cochrane Review] In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>e. Harvey EL, Glenny A, Kirk SFL, Summerbell CD. Improving health professionals' management and the organisation of care for overweight and obese people [Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>f. Hulscher MEJL, Wensing M, Van der Weijden T, Grol R, Van Weel C. Interventions to implement prevention in primary care [Protocol for a Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>g. Rowe R, Wyatt J, Grimshaw J, Gordon R, Hicks N, Altman D, Durieux P, Haaijer F, Denig P, Gill P. Manual paper reminders: effects on professional practice and health care outcomes [Protocol for a Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>Gordon RB, Grimshaw JM, Eccles M, Rowe RE, Wyatt JC. On-screen computer reminders: effects on professional practice and health care outcomes [Protocol for a Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C25	<p>(cont) Encourage doctors, dentists, nurses and other health professionals to give advice on prevention</p>	<p>oral contraceptives.^h</p> <p>Long term post-menopausal unopposed oestrogen therapy increases the risk of breast and endometrial cancer. There is no indication that short term therapy is harmful.ⁱ While the risk of breast cancer is increased in women using hormone replacement therapy (HRT) and increases with the duration of use, its effects decline after cessation of use and have largely disappeared after 5 years.^j HRT use may also increase risk of ovarian cancer^k but may reduce risk of colorectal cancer.^l</p> <p>No systematic reviews have been identified assessing the effects of health professional advice on cancer when prescribing hormones to women.</p>	<p>Gorman PN, Redfern C, Liaw T, Mahon S, Wyatt JC, Rowe RE, Grimshaw JM. Computer-generated paper reminders: effects on professional practice and health care outcomes [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>h. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormonal contraceptives: collaborative reanalysis of individual data on 53 297 women with breast cancer and 100 239 women without breast cancer from 54 epidemiological studies. <i>Lancet</i> 1996;347:1713-27.</p> <p>i. Grady D, Gebretsadik T, Kerlikowske K, Ernster V, Petitti D. Hormone replacement therapy and endometrial cancer risk: a meta-analysis. <i>Obstetrics and Gynecology</i> 1995;85:304-13.</p> <p>j. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormone replacement therapy: collaborative reanalysis of data from 51 epidemiological studies of 52,705 women with breast cancer and 108,411 women without breast cancer. <i>Lancet</i> 1997;350:1047-59.</p> <p>k. Garg PP, Kerlikowske K, Subak L, Grady D. Hormone replacement therapy and the risk of epithelial ovarian carcinoma: a meta-analysis. <i>Obstetrics and Gynaecology</i> 1998;92:472-9.</p> <p>l. Grodstein F, Newcomb PA, Stampfer MJ. Postmenopausal hormone therapy and the risk of colorectal cancer: a review and meta-analysis. <i>American Journal of Medicine</i> 1999;106:574-82.</p> <p>a. NHS Centre for Reviews and Dissemination/University of Oxford Health Services Research Unit. Health Technology Assessment 1999;3(22).</p>
C26	<p>Ensure that healthy schools work with pupils and parents to improve health</p>	<p>Evidence suggests that school health promotion initiatives can have a positive impact on children's health and behaviour, but do not do so consistently. Most are able to increase knowledge but changing children's attitudes and behaviour is harder to achieve.^a</p> <p>No reviews have been identified assessing the effects of school health promotion initiatives on cancer rates.</p>	

CANCER: Services interventions

<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C27 Ensure smokers have access to high-quality smoking cessation services, particularly in health action zones	Free telephone quit lines, as part of an anti-smoking campaign, can improve quit rates. ^a A number of reviews of anti-smoking interventions in a variety of healthcare settings is helping to identify the best ways to help people stop smoking. ^b	<p>a. Health Education Authority. Tobacco control in England: Communication strategies of the Health Education Authority London: Health Education Authority 1997.</p> <p>b. Abbot NC, Stead LF, White AR, Barnes J, Ernst E. Hypnotherapy for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software. Mullen PD, Simons-Morton DG, Ramirez G, Frankowski RF, Green LW, Mains DA. A meta-analysis of trials evaluating patient education and counseling for three groups of preventive health behaviors. <i>Patient Education and Counseling</i> 1997;32:157-73.</p> <p>Gourlay SG, Stead LF, Benowitz NL. Clonidine for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Health Education Authority. Tobacco control in England: Communication strategies of the Health Education Authority. London: Health Education Authority 1997.</p> <p>Lancaster T, Stead LF. Individual behavioural counselling for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Lancaster T, Stead LF. Mecamylamine (a nicotine antagonist) for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Lancaster T, Stead LF. Self-help interventions for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Law M, Tang JL. An analysis of the effectiveness of interventions intended to help people stop smoking. Archives of Internal Medicine 1995;155:1933-41.</p> <p>Lumley J, Oliver S, Waters E. Interventions for promoting smoking cessation during pregnancy [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Rice VH, Stead LF. Nursing interventions for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C28 Maintain effective, appropriate and high quality existing cancer screening programmes and consider possible extensions of these (<i>cont</i>)</p>	<p><u>Cervical cancer:</u></p> <p>Screening for cervical cancer is likely to be most effective if women are screened every 2 years starting at age 18 (or within a year of first sexual intercourse) and ending at age 70, with a systematic approach to monitoring the screening programme.^a</p> <p>Extended tip spatulas appear to be better for collecting endocervical cells than the commonly used Ayres spatula.^b</p> <p>Human papilloma virus (HPV) testing is more sensitive than cytology for high grade cervical intraepithelial neoplasia (CIN), but has lower specificity, especially in young women, and is currently recommended.^c</p> <p><u>Breast cancer:</u></p> <p>If carried out to a high standard, screening for breast cancer results in reduced mortality amongst women 50 years of age and older,^d however, concern has been expressed about the quality of the evidence upon which this conclusion has been based.^e Film screen mammography is the most effective form of primary screening and it is particularly effective if the films are read</p>	<p>Rigotti NA, Munafo M. Interventions for smoking cessation in hospitalised patients [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Silagy C, Ketteridge S. Physician advice for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Silagy C, Mant D, Fowler G, Lancaster T. Nicotine replacement therapy for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Stead LF, Lancaster T. Group behaviour therapy programmes for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>White AR, Rampes H, Ernst E. Acupuncture for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>a. Braggett D, Lea A, Carter RC, Hailey D, Ludowyk P. Issues in cervical cancer screening and treatment: new technologies and costs of alternative management strategies. Canberra: Australian Institute of Health and Welfare, 1993.</p> <p>Ibbotson T, Wyke S. A review of cervical cancer and cervical screening: implications for nursing practice. <i>Journal of Advances in Nursing</i> 1995;22:745-52.</p> <p>Noorani HZ, Arratoon C, Hall A. Assessment of techniques for cervical cancer screening. Ottawa: Canadian Coordinating Office for Health Technology Assessment/Office Canadien de Coordination de l'évaluation des Technologues de la Santé, 1997.</p> <p>b. Buntinx F, Brouwers M. Relation between sampling device and detection of abnormality in cervical smears: a meta-analysis of randomised and quasi-randomised studies. <i>BMJ</i> 1996;313:1285-90.</p> <p>Martin-Hirsch P, Jarvis G, Kitchener H, Lilford R. Collection devices for obtaining cervical cytology samples [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>c. Cuzick J, Sasieni P, Davies P, Adams J, Normand C, Frater A, Van Ballegooijen M, Van den Akker E. A systematic review of the role of human papillomavirus</p>

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POLICY	SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE	REFERENCES
C28 <i>(cont)</i> Maintain effective, appropriate and high quality existing cancer screening programmes and consider possible extensions of these <i>(cont)</i>	<p>independently by two readers, one of whom is a radiologist.^d</p> <p>There is continuing uncertainty about the effects of breast cancer screening in women under 50.^f</p> <p>There is however, no evidence that breast self-examination is effective.^g</p> <p><u>Colorectal cancer:</u></p> <p>Colorectal cancer screening using faecal occult blood tests can reduce mortality from colorectal cancer. Annual screening is more effective than biennial screening.^h</p> <p>Colonoscopic surveillance should be offered to patients with long standing ulcerative colitis.ⁱ A review of screening for colorectal cancer in people with all types of inflammatory bowel disease is underway.^j</p> <p><u>Prostate cancer:</u></p> <p>Evidence suggests that screening for prostate cancer is not presently justified as the screening tests are not sufficiently accurate, available treatments have not been adequately evaluated and, given the slow growing nature of prostate tumours, outcome may be as good as without active intervention.^k</p> <p><u>Ovarian cancer:</u></p> <p>Evidence suggests that routine screening for ovarian cancer is not presently justified in women, with or without a family history of ovarian cancer, since the available tests are insensitive and can raise anxiety without any evidence that they reduce mortality or morbidity.^l</p> <p><u>Lung cancer:</u></p> <p>Screening for lung cancer is not presently justified as there is little evidence that it reduces mortality or morbidity rates and there is some evidence that it causes harm.^m</p> <p>A further review on the effectiveness of screening for lung cancer is underway.ⁿ</p>	<p>testing within a cervical screening programme. Health Technology Assessment. 1999;3(14).</p> <p>d. Kerlikowske K, Grady D, Rubin SM, Sandrock C, Ernster VL. Efficacy of screening mammography : A meta-analysis. JAMA 1995;273:149-54.</p> <p>NHS Centre for Reviews and Dissemination. The management of primary breast cancer. Effective Health Care 1996;2(6).</p> <p>Mushlin AI, Kouides RW, Shapiro DE. Estimating the accuracy of screening mammography: a meta-analysis. American Journal of Preventive Medicine 1998;14:143-53.</p> <p>e. Gøtzsche PC, Olsen O. Mammographic screening for detection of breast cancer. [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Gøtzsche PC, Olsen O. Is screening for breast cancer with mammography justifiable? Lancet 2000;355:129-34.</p> <p>f. Hendrick RE, Smith RA, Rutledge JH 3rd, Smart CR. Benefit of screening mammography in women aged 40-49: a new meta-analysis of randomised controlled trials. Journal of the National Cancer Institute Monograph 1997;87-92.</p> <p>Glasziou PP, Woodward AJ, Mahon CM. Mammographic screening trials for women aged under 50: a quality assessment and meta-analysis. Medical Journal of Australia 1995;162:625-9.</p> <p>g. Austoker J. Screening and self examination for breast cancer. BMJ 1994;309:168-74.</p> <p>NHS Centre for Reviews and Dissemination. The management of primary breast cancer. Effective Health Care 1996;2(6).</p> <p>h. Agency for Health Care Policy and Research. Colorectal cancer screening. Rockville, MD:Agency for Health Care Policy and Research, 1997.</p> <p>Towler BP, Irwig L, Glasziou P, Weller D, Kewenter J. Screening for colorectal cancer using the faecal occult blood test, Hemoccult [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C28	<p>(cont) Maintain effective, appropriate and high quality existing cancer screening programmes and consider possible extensions of these</p>	<p>Clinical surveillance for second cancers is recommended for patients successfully treated for cancers of the head and neck and lungs.^o</p> <p><u>General issues in screening:</u></p> <p>A review to examine the ways of communicating risk in health screening programs is underway.^p</p>	<p>i. Griffiths A M, Sherman P M Colonoscopic surveillance for cancer in ulcerative colitis: a critical Review. <i>Journal of Pediatric Gastroenterology and Nutrition</i> 1997;24:202-10.</p> <p>j. Watson A, Robinson A, Lashner B, Irvine E, Katchatouian M. Strategies for detecting colon cancer and/or dysplasia in patients with inflammatory bowel disease [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>k. Coley CM, Barry MJ, Fleming C, Mulley AG. Early detection of prostate cancer. Part 1: Prior probability and effectiveness of tests. <i>Annals of Internal Medicine</i> 1997;126:394-406.</p> <p>Chamberlain J, Melia J, Moss S, Brown J. The diagnosis, management, treatment and costs of prostate cancer in England and Wales. <i>Health Technology Assessment</i> 1997;1(3).</p> <p>NHS Centre for Reviews and Dissemination. Screening for prostate cancer. <i>Effectiveness Matters</i> 1997;2(2).</p> <p>Selley S, Donovan J, Faulkner A, Coast J, Gillat D. Diagnosis, management and screening of early localised prostate cancer: A systematic review. <i>Health Technology Assessment</i> 1997;1(2).</p> <p>Coley CM, Barry M J, Fleming, C, Fahs MC, Mulley AG. Early detection of prostate cancer. Part II: Estimating the risks, benefits, and costs. <i>American College of Physicians. Annals of Internal Medicine.</i> 1997;126:468-79.</p> <p>l. Bell R, Petticrew M, Luengo S, Sheldon TA, Screening for ovarian cancer: a systematic review. <i>Health Technology Assessment</i> 1998;2:1-84.</p> <p>Carlson KJ, Skates SJ, Singer DE. Screening for ovarian Cancer. <i>Annals of Internal Medicine</i> 1994;121:124-32.</p> <p>m. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>n. Manser R, Ansari MZ, Irving L, Abramson M, Hart W, Campbell DC. Screening for lung cancer [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C29 Ensure all patients with suspected cancer are seen by a specialist within 2 weeks of urgent referral by a GP</p>	<p>Evidence suggests that one third of women with breast cancer symptoms delay seeking help for 3 or more months^a and that delays in diagnosing breast cancer of 3-6 months are associated with lower survival.^b</p> <p>No systematic reviews have been identified on the effect of interventions to reduce delay in diagnosis on survival rates.</p>	<p>o. Haughey BH, Gates GA, Arfken CL, Harvey J. Meta-analysis of second malignant tumors in head and neck cancer: the case for an endoscopic screening protocol. <i>Annals of Otology Rhinology Laryngology</i> 1992;101:105-12.</p> <p>p. Edwards A, Hood K, Matthews E, Russell I, Wilkinson C. Personalised risk communication in health screening programs [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>a. Facione NC. Delay versus help seeking for breast cancer symptoms: a critical review of the literature on patient and provider delay. <i>Social Science and Medicine</i> 1993;36:1521-34.</p> <p>b. Richards MA, Westcombe AM, Love SB, Littlejohns P, Ramirez AJ. Influence of delay on survival in patients with breast cancer: a systematic review. <i>Lancet</i> 1999; 353:1119-26.</p>
<p>C30 Ensure equal access to high-quality treatment and care, through implementation of the expert report on the organisation and management of NHS cancer services (<i>cont</i>)</p>	<p>Outcomes in cancer treatment can be improved by concentrating care in the hands of specialists, although there is wide variability in outcome across the UK.^a Treatment within randomised controlled trials may also result in better outcomes.^b</p> <p>Centralisation of cancer services can make access for people in rural areas more difficult. There is some weak evidence that shared outreach is safe and can make specialist care more accessible to outlying patients.^c</p> <p>After primary treatment is complete, routine intensive hospital follow up after cancer treatment has not been shown to improve outcome.^d GP-led follow-up with access to specialist care appears to be effective and acceptable to both patients and GPs.^e</p> <p>Effective palliative care by home care teams allows patients to stay at home longer, which is preferred by most patients and is the least expensive option for the NHS.^d</p> <p>Systematic reviews of the effects of strategies for dealing with common problems in palliative care are being prepared^f and will inform the guidelines in the management of palliation.^g</p>	<p>a. NHS Centre for Reviews and Dissemination. The management of colorectal cancer. Effective Health Care. 1997;3(6).</p> <p>NHS Executive. Improving outcomes in colorectal cancer. London: Department of Health, 1997.</p> <p>Grilli R, Minozzi S, Tinazzi A, Labianca R, Sheldon TA, Liberati A. Do specialists do it better? The impact of specialization on the processes and outcomes of care for cancer patients. <i>Annals of Oncology</i> 1998;9:365-74.</p> <p>b. Howard GC, Clarke K, Elia MH, Hutcheon AW, Kaye SB, Windsor PM. A Scottish national audit of current patterns of management for patients with testicular non-seminomatous germ-cell tumours. The Scottish Radiological Society and the Scottish Committee of the Royal College of Radiologists. <i>British Journal of Cancer</i> 1995;72:1303-6.</p> <p>Howard GC, Clarke K, Elia MH, Hutcheon AW, Kaye SB, Windsor PM, Yosef HM, Sharp L. A Scottish national mortality study assessing cause of death, quality of and variation in management of patients with testicular non-seminomatous germ-cell tumours. The Scottish Radiological Society and the Scottish Standing Committee of the Royal College of Radiologists. <i>British Journal of Cancer</i> 1995;72:1307-11.</p> <p>c. Campbell NC, Ritchie LD, Thain J, Deans HG, Rawles</p>

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POLICY	SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE	REFERENCES
<p>C30 <i>(cont)</i> Ensure equal access to high-quality treatment and care, through implementation of the expert report on the organisation and management of NHS cancer services</p>	<p>Mass media channels of communication can influence use of healthcare.^h</p>	<p>JM, Squair JL. Secondary prevention in coronary heart disease: a randomised trial of nurse led clinics in primary care. <i>Heart</i> 1998;80:447-52.</p> <p>d. NHS Executive. Improving outcomes in breast cancer. London: Department of Health, 1997. NHS Executive. Improving outcomes in colorectal cancer. London: Department of Health, 1997. NHS Executive. Improving outcomes in gynaecological cancer. London: Department of Health, 1999. NHS Executive. Improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>e. NHS Executive. Improving outcomes in breast cancer. London: Department of Health, 1997.</p> <p>f. McQuay HJ, Collins SL, Carroll D, Moore RA. Radiotherapy for the palliation of painful bone metastases [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software. Hearn J, Higginson J. Do specialist palliative care teams improve outcomes for cancer patients - a systematic literature review. <i>Palliative Medicine</i> 1998;12:317-32.</p> <p>g. NHS Executive. Palliative Care. London: Department of Health, 1998. McQuay HJ, Moore RA, Eccleston C, Morley S, de C Williams AC. Systematic review of outpatient services for chronic pain control. Health Technology Assessment 1997;1:137.</p> <p>h. Grilli R, Freemantle N, Minozzi S, Domenighetti G, Finer D. Mass media interventions: effects on health services utilisation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>
Local Players and Communities can:		
<p>C31 Provide effective help in stopping smoking to people who want to stop especially for disadvantaged groups <i>(cont)</i></p>	<p>Free telephone quit lines as part of an anti-smoking campaign can improve quit rates.^a</p> <p>Reviews of anti-smoking interventions in a variety of healthcare settings are helping to identify the best ways to help people stop smoking.^b</p>	<p>a. Health Education Authority. Tobacco control in England: Communication strategies of the Health Education Authority London: Health Education Authority 1997.</p> <p>b. Abbot NC, Stead LF, White AR, Barnes J, Ernst E. Hypnotherapy for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C31 <i>(cont)</i> Provide effective help in stopping smoking to people who want to stop especially for disadvantaged groups		<p>Oxford: Update Software.</p> <p>Mullen PD, Simons-Morton DG, Ramirez G, Frankowski RF, Green LW, Mains DA. A meta-analysis of trials evaluating patient education and counseling for three groups of preventive health behaviors. <i>Patient Education and Counseling</i> 1997;32:157-73.</p> <p>Gourlay SG, Stead LF, Benowitz NL. Clonidine for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Health Education Authority. Tobacco control in England: Communication strategies of the Health Education Authority. London: Health Education Authority 1997.</p> <p>Lancaster T, Stead LF. Individual behavioural counselling for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Lancaster T, Stead LF. Mecamylamine (a nicotine antagonist) for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Lancaster T, Stead LF. Self-help interventions for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Lumley J, Oliver S, Waters E. Interventions for promoting smoking cessation during pregnancy [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Rice VH, Stead LF. Nursing interventions for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Rigotti NA, Munafò M. Interventions for smoking cessation in hospitalised patients [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Silagy C, Mant D, Fowler G, Lancaster T. Nicotine replacement therapy for smoking cessation [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Stead LF, Lancaster T. Group behaviour therapy</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C32 Ensure that vulnerable groups have equitable access to screening services	<p>Interventions which appear helpful in promoting the uptake of screening are invitation appointments, letters (less effective for mammography) and telephone calls, telephone counselling, reduction of financial barriers (such as postage costs) and chart reminders for physicians. Most educational materials have limited effectiveness, but educational home visits may increase uptake.^a</p> <p>A review of different strategies for inviting women for breast cancer screening is underway.^b</p> <p>A review on ways of minimising anxiety and improving people's understanding and experience of screening is underway.^c</p> <p>No evidence has been identified on strategies to improve access to screening specifically for vulnerable groups.</p>	<p>programmes for smoking cessation [Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>White AR, Rampes H, Ernst E. Acupuncture for smoking cessation [Cochrane Review]. In: <i>The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>a. NHS Centre for Reviews and Dissemination. <i>Systematic review of the determinants of screening uptake and interventions for increasing uptake. 2000.</i></p> <p>b. Bonfill X, Marzo M, Emparanza JI, Pladevall M. <i>Strategies for inviting women to participate in breast cancer screening [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p> <p>c. Bastian H, Keirse MJNC, Searle J. <i>Influencing people's experiences of screening [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</i></p>
C33 Work with voluntary organisations to provide clear and consistent messages about early detection and uptake of screening	<p>No systematic reviews have been identified examining the effects of messages provided by voluntary groups on the uptake of screening.</p>	<p>a. NHS Executive. <i>Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</i></p> <p>NHS Executive. <i>Guidelines on improving outcomes in colorectal cancer. London: Department of Health, 1997.</i></p> <p>b. Scheidler J, Hricak H, Yu KK, Subak L, Segal MR. Radiological evaluation of lymph node metastases in patients with cervical cancer: a meta-analysis. <i>JAMA 1997;278:1098-101.</i></p> <p>c. Merritt M, Williams MF, James TH, Porubsky ES. Detection of cervical metastasis: a meta-analysis comparing computed tomography with physical</p>
C34 Ensure rapid specialist treatment for cancers when they are diagnosed (<i>cont</i>)	<p><u>Diagnosis and staging:</u></p> <p>Careful evaluation of patients with suspected and diagnosed cancer is necessary to inform treatment decisions.^a</p> <p><u>Cervical cancer:</u></p> <p>Computed tomography and magnetic resonance imaging provide more detailed information for clinical evaluation of invasive cervical cancer,^b but no reviews were identified assessing the impact of diagnostic methods on treatment or outcomes.</p>	<p>a. NHS Executive. <i>Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</i></p> <p>NHS Executive. <i>Guidelines on improving outcomes in colorectal cancer. London: Department of Health, 1997.</i></p> <p>b. Scheidler J, Hricak H, Yu KK, Subak L, Segal MR. Radiological evaluation of lymph node metastases in patients with cervical cancer: a meta-analysis. <i>JAMA 1997;278:1098-101.</i></p> <p>c. Merritt M, Williams MF, James TH, Porubsky ES. Detection of cervical metastasis: a meta-analysis comparing computed tomography with physical</p>

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POLICY	SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE	REFERENCES
C34 (cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)	<p><u>Head and neck cancer:</u></p> <p>Computed tomography examination is superior to physical examination in the detection of lymph nodes in the neck.^c However, no reviews have been identified on the impact of diagnostic methods on treatment or outcomes.</p> <p><u>Lung cancer:</u></p> <p>Computed tomography and radionuclide imaging have a high negative predictive value,^d but no reviews have been identified on the influence of diagnostic tests on survival.</p> <p><u>Melanoma:</u></p> <p>Both the ABCD and 7-point checklists appear to be sensitive diagnostic tests that can help physicians differentiate between benign and malignant moles.^e</p> <p><u>Urological cancer:</u></p> <p>There is evidence that macroscopic haematuria is a risk marker for urological cancer.^f However no reviews have been identified that examined the impact of diagnostic tests on survival or other outcomes.</p> <p><u>Breast cancer:</u></p> <p>The speed and cost-effectiveness of definitive diagnosis for suspected breast cancer can be substantially improved by the routine and consistent use of the “Triple assessment” (a combination of clinical examination, mammography and fine-needle aspiration cytology).^g</p>	<p>examination. Archives of Otolaryngology Head and Neck Surgery 1997;123:149-52.</p> <p>d. Silvestri GA, Littenberg B, Colice GL. The clinical evaluation for detecting metastatic lung cancer. A meta-analysis. Am J Respir Crit Care Med. 1995;152:225-30.</p> <p>e. Whited JD, Grichnik JM. Does this patient have a mole or a melanoma? JAMA 1998;279:696-701.</p> <p>f. Buntinx F, Wauters H. The diagnostic value of macroscopic haematuria in diagnosing urological cancers: a meta-analysis. Family Practice 1997;14:63-8.</p> <p>g. NHS Centre for Reviews and Dissemination. The management of primary breast cancer. Effective Health Care 1996;2(6).</p> <p>NHS Executive. Guidelines on improving outcomes in breast cancer. London: Department of Health, 1997.</p>
	<p><u>Treatment:</u></p> <p><u>Prostate cancer:</u></p> <p>In the management of early prostate cancer one review concluded that radiotherapy is superior to radical prostatectomy,^a but other evidence found that survival with any of watchful waiting, radiotherapy or radical prostatectomy is relatively high with no significant difference in mortality between the three treatments.^b</p>	<p>a. Robinson JW, Dufour MS, Fung TS. Erectile functioning of men treated for prostate carcinoma. Cancer 1997;3:538-44.</p> <p>b. NHS Centre for Reviews and Dissemination, The University of York. Screening for Prostate Cancer. Effectiveness Matters 1997;2(2).</p> <p>c. Selley S, Donovan J, Faulkner A, Coast J, Gillat D. Diagnosis, management and screening of early localised prostate cancer. Health Technology Assessment. National Coordinating Centre for Health Technology Assessment (NCCHTA). 1997;1:96.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34 <i>(cont)</i> Ensure rapid specialist treatment for cancers when they are diagnosed. <i>(cont)</i>	<p>Conservative management is a reasonable treatment option for men with localised disease.^c</p> <p>No one radiotherapy technique is has been found to be superior.^d</p> <p>Evidence suggests that maximal androgen blockade (MAB) for advanced prostate cancer produces a modest overall and cancer-specific survival at 5 years (from 0-5%) but is associated with increased adverse events and reduced quality of life.^e</p>	<p>d. Vicini FA, Horwitz EM, Kini VR, Stromberg JS, Martinez AA. Radiotherapy options for localized prostate cancer based upon pretreatment serum prostate-specific antigen levels and biochemical control: a comprehensive review of the literature. <i>International Journal of Radiation Oncology, Biology, Physics.</i> 1998;40:1101-10.</p> <p>e. Schmitt B, Bennett C, Seidenfeld J, Samson D, Wilt T. Maximal androgen blockade for advanced prostate cancer [Cochrane Review]. In: The Cochrane Library, Issue 2, 2000. Oxford: Update Software.</p> <p>Caubet JF, Tosteson TD, Dong EW, Naylon EM, Whiting GW, Ernstoff MS, Ross SD. Maximum androgen blockade in advanced prostate cancer: a meta-analysis of published randomized controlled trials using nonsteroidal antiandrogens. <i>Urology</i> 1997;49:71-8.</p> <p>Prostate Cancer Trialists' Collaborative Group. Maximum androgen blockade in advanced prostate cancer: an overview of the randomised trials. <i>Lancet</i> 2000;355:1491-8.</p>
	<p><u>Lung cancer:</u></p> <p>Multiple drug chemotherapy in advanced and disseminated non-small cell lung cancer reduces mortality at six months and improves quality of life.^a</p> <p>Cisplatin-based chemotherapy combinations improve survival rates, but has unpleasant side effects.^b</p> <p>Prophylactic granulocyte colony-stimulating factor (G-CSF) does not affect mortality, but does significantly reduce the incidence of neutropenic fever in patients receiving chemotherapy for small cell lung cancer.^c</p> <p>A review on chemotherapy for extensive small cell lung cancer is underway.^d</p> <p>A review of maintenance chemotherapy for small cell lung cancer found that trials showing poor outcomes were of poor methodological quality. The authors thus concluded that maintenance therapy may be associated with some survival advantage, particularly in patients with limited disease and those responding completely to cyclophosphamide and in cases of objective response to multi-drug regimens.^e</p>	<p>a. Marino P, Preatoni A, Cantoni A. Randomized trials of radiotherapy alone versus combined chemotherapy and radiotherapy in stages IIIa and IIIb non-small cell lung cancer: a meta-analysis. <i>Cancer</i> 1995;76:593-601.</p> <p>b. Marino P, Preatoni A, Cantoni A. Randomized trials of radiotherapy alone versus combined chemotherapy and radiotherapy in stages IIIa and IIIb non-small cell lung cancer: a meta-analysis. <i>Cancer</i> 1995;76:593-601.</p> <p>Non-small Cell Lung Cancer Collaborative Group. Chemotherapy in non-small cell lung cancer: a meta-analysis using updated data on individual patients from 52 randomised trials. <i>BMJ</i> 1995;311:899-909.</p> <p>Souquet PJ, Chauvin F, Boissel JP, Bernard JP. Meta-analysis of randomised trials of systemic chemotherapy versus supportive treatment in non-resectable non-small cell lung cancer. <i>Lung Cancer</i> 1995;12:147-54.</p> <p>c. Messori A, Trippoli S, Tendi E. G-CSF for the prophylaxis of neutropenic fever in patients with small cell lung cancer receiving myelosuppressive antineoplastic chemotherapy : meta-analysis and pharmacoeconomic evaluation. <i>Journal of Clinical Pharmacy and Therapeutics</i> 1996;21:57-63.</p>

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POLICY	SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE	REFERENCES
<p>C34 (cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)</p>	<p>Prophylactic cranial irradiation reduces the risk of central nervous system (CNS) relapse in patients with small cell lung cancer who attain a complete remission with chemotherapy. It also improves survival but by a smaller amount.^f</p> <p>Thoracic radiotherapy reduces mortality in patients with limited small cell lung cancer.^g</p> <p>Post-operative radiotherapy for non-small cell lung cancer decreases survival.^h</p> <p>The role of radical radiotherapy for stage I and II non-small-cell lung cancer patients unable to undergo surgery is the subject of a review in progress.ⁱ</p> <p>Evidence suggests that CHART (Continuous Hyper-fractionated Accelerated Radiotherapy) should be offered to suitable patients with non small-cell lung cancer.^j</p>	<p>d. Agra Y, Pelayo M, Sacristan A, Urrutia G, Bonfill X. Chemotherapy for extensive small cell lung cancer [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000 Oxford: Update Software.</p> <p>e. Sculier JP, Berghmans T, Castaigne C, Luce S, Sotiriou C, Vermynen P, Paesmans M. Maintenance chemotherapy for small cell lung cancer: a critical review of the literature. Lung Cancer 1998;19:141-51.</p> <p>f. Auperin A, Arriagada R, Pignon JP, Le Pechoux C, Gregor A, Stephens RJ, Kristjansen PE, Johnson BE, Ueoka H, Wagner H, Aisner J. Prophylactic cranial irradiation for patients with small cell lung cancer in complete remission. <i>New England Journal of Medicine</i> 1999;341:476-84.</p> <p>g. Arriagada R, Pignon JP, Ihde DC, Johnson DH, Perry MC, Souhami RL, Brodin O, Joss RA, Kies MS, Lebeau B, Onoshi T, Osterlind K, Tattersall MH, Wagner H. Effect of thoracic radiotherapy on mortality in limited small cell lung cancer. A meta-analysis of 13 randomized trials among 2,140 patients. <i>Anticancer Research</i> 1994;14:333-5.</p> <p>NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>h. PORT Meta-analysis Trialists Group. Postoperative radiotherapy in non-small-cell lung cancer: systematic review and meta-analysis of individual patient data from nine randomised controlled trials. <i>Lancet</i> 1998;352:257-63.</p> <p>i. Rowell NP, Williams CJ. Radical radiotherapy for stage 1/11 non-small cell lung cancer in patients not sufficiently fit for or declining surgery [Protocol for a Cochrane Review]. In: The Cochrane Library. Issue 1, 2000. Update Software.</p> <p>j. NHS Centre for Reviews and Dissemination. Management of lung cancer. Effective Health Care 1998;4:12.</p>
	<p><u>Gynaecological cancers:</u></p> <p><u>Cervical cancer:</u></p> <p>Radiotherapy improves survival in cervical cancer. Simultaneous treatment with cisplatin and radiotherapy increases survival rates in women with high-</p>	<p>a. Swedish Council on Technology Assessment in Health Care. Cervical cancer (cervix uteri). <i>Acta Oncologica</i> 1996;2:75-80.</p> <p>NHS Centre for Reviews and Dissemination. The management of gynaecological cancers. Effective</p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34	<p>(cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)</p>	<p>risk cervical cancer.^a</p> <p>A review on neoadjuvant chemotherapy^b is underway.</p> <p>A review of the effectiveness of concomitant chemotherapy and radiation therapy with standard radiotherapy in the treatment of locally advanced carcinoma of the cervix is underway.^c</p> <p>There is no evidence to support the use of induction chemotherapy followed by radiotherapy for advanced cervical cancer.^d</p> <p>There is no one superior surgical technique for treatment of cervical intraepithelial neoplasia (CIN).^e A review comparing immediate versus delayed treatment for cervical intraepithelial neoplasia is underway.^f</p> <p><u>Endometrial cancer:</u></p> <p>Adjuvant progestagen therapy in the primary treatment of endometrial cancer has not been shown to be beneficial.^g</p> <p>Radiotherapy improves the outcome of women with endometrial cancer.^h</p> <p><u>Ovarian cancer:</u></p> <p>There is no evidence supporting the use of adjuvant radiotherapy in the treatment of early ovarian cancer.ⁱ</p> <p>Patients with recurrent ovarian cancer, particularly after a prolonged clinical remission, can have increased survival benefit from optimal secondary debulking surgery.^j</p> <p>A review using individual patient data from randomised trials of chemotherapy in advanced ovarian cancer suggests that platinum-based chemotherapy is better than non-platinum therapy. There was some evidence that combination therapy improves survival compared with platinum alone. No difference in effect was found between cisplatin and carboplatin.^k</p>	<p>Health Care 1999;5:1-12.</p> <p>b. Cervix cancer meta-analysis collaboration. Neoadjuvant chemotherapy for locally advanced cervix cancer [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>c. Green J, Fresco L, Kirwan J, Symonds P, Tierney J, Williams C. Concomitant chemotherapy and radiation therapy for cancer of the uterine cervix [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 3, 2000. Oxford: Update Software.</p> <p>d. Shueng PW, Hsu WL, Jen YM, Wu CJ, Liu HS. Neoadjuvant chemotherapy followed by radiotherapy should not be a standard approach for locally advanced cervical cancer. <i>International Journal of Radiation Oncology, Biology, Physics</i> 1998;40:889-96.</p> <p>e. Martin-Hirsch PL, Paraskevaidis E, Kitchener H. Surgery for cervical intraepithelial neoplasia. [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>f. Martin-Hirsch PL, Kitchener H. Immediate versus delayed treatment for cervical intraepithelial neoplasia [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>g. Martin-Hirsch PL, Jarvis G, Kitchener H, Lilford R. Progestagens for endometrial cancer. [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>h. Swedish Council on Technology Assessment in Health Care. Uterine cancer (corpus uteri). <i>Acta Oncologica</i> 1996;2:81-5.</p> <p>i. Swedish Council on Technology Assessment in Health Care. Ovarian cancer. <i>Acta Oncologica</i> 1996;2:86-92.</p> <p>j. Bristow RE, Lagasse LD, Karlan BY. Secondary surgical cytoreduction for advanced epithelial ovarian cancer: patient selection and review of the literature. <i>Cancer</i> 1996;78:2049-62.</p> <p>k. Advanced Ovarian Cancer Trialists Group. Chemotherapy for advanced ovarian cancer. [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34	<p>(cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)</p>	<p><u>Vulval cancer:</u></p> <p>Evidence from a review of surgical treatments for early squamous cell carcinoma of the vulva concludes that radical local excision, ipsilateral lymph node dissection in lateral tumors and triple incision technique are safe treatment options for early vulvar cancer. However, superficial groin node dissection results in an excess of groin recurrences compared to a full femoro-inguinal groin node dissection.¹</p> <p><u>Breast cancer:</u></p> <p>When managing ductal carcinoma in situ of the breast, lumpectomy followed by radiotherapy is an appropriate alternative for most patients. The use of lumpectomy alone in selected patients remains controversial.^a</p> <p>A review on post-operative radiotherapy for ductal carcinoma in situ is in preparation.^b</p> <p>Sentinel lymph node biopsy reflects the status of the axilla in 97% of cases and has a false negative rate of 5%.^c</p> <p>Patients treated with breast conserving surgery have comparable survival rates to patients allocated to mastectomy. Mastectomy without adjuvant radiation appears to be inferior to breast conserving therapy for node positive patients.^d It is important to select treatment on an individual basis taking into account factors such as the risk of local recurrence and the likely impact of disfigurement.^e Evidence suggests that women who had breast conservation had a more favourable image of themselves, but the evidence on other parameters is inconclusive and the quality of the relevant evidence is poor.^f</p> <p>Evidence suggests that in early breast cancer, radiotherapy produces a two-thirds reduction in local recurrence of the disease, and would be expected to produce an absolute increase in 20-year survival of about 2-4% were it not for the long-term hazards associated with the therapy. The average hazard reduces this 20-year survival benefit in young women and reverses it in older women.^g This review is ongoing.^h</p> <p>A review on immunotherapy for early breast cancer is in preparation,ⁱ but the evidence from a previous review is that immunotherapy does not confer any</p>	<p>1. Ansink A, Van der Velden J. Surgical interventions for treating early squamous vulval cancer. [Cochrane Review]. In: The Cochrane Library, Issue 2, 2000. Oxford: Update Software.</p> <p>a. Fonseca R, Hartmann LC, Petersen IA, Donohue JH, Crotty TB, Gisvold JJ. Ductal carcinoma in situ of the breast. <i>Annals of Internal Medicine</i> 1997; 127:1013-22.</p> <p>b. Gherzi D, Simes RJ, Lockwood S. Post operative radiotherapy for ductal carcinoma in situ of the breast. [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>c. Miltenburg DM, Miller C, Karamlou TB, Brunicardi FC. Meta-analysis of sentinel lymph node biopsy in breast cancer. <i>Journal of Surgical Research</i> 1999;84:138-42.</p> <p>d. Morris AD, Morris RD, Wilson JF, White J, Steinberg S, Okunieff P, Arriagada R, Le MG, Blichert Toft M, van Dongen JA. Breast-conserving therapy vs mastectomy in early-stage breast cancer: a meta-analysis of 10-year survival. <i>Cancer Journal from Scientific American</i> 1997;3:6-12.</p> <p>NHS Executive. Guidelines on improving outcomes in breast cancer. London: Department of Health, 1997.</p> <p>e. NHS Centre for Reviews and Dissemination. The management of primary breast cancer. Effective Health Care 1996:2(6).</p> <p>f. Irwig L, Bennetts A. Quality of life after breast conservation or mastectomy: a systematic review. <i>Australian and New Zealand Journal of Surgery</i> 1997;67:750-4.</p> <p>g. Early Breast Cancer Trialists' Collaborative Group. Favourable and unfavourable effects on long-term survival of radiotherapy for early breast cancer: an overview of the randomised trials. <i>Lancet</i> 2000;355:1757-70.</p> <p>h. Early Breast Cancer Trialists' Collaborative Group. Radiotherapy for early breast cancer. [Protocol for a</p>

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34	<p>(cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)</p>	<p>survival benefit.^j</p> <p>Adjuvant systemic therapy in breast cancer using tamoxifen, ovarian ablation, or chemotherapy, improves survival and reduces recurrence rates in many women and is cost-effective.^k</p> <p>Evidence strongly favours some years of adjuvant tamoxifen for a wide range of women with early breast cancer, at least in terms of recurrence and survival, and the balance of the known long-term benefits and risks.^l This review is ongoing.^m</p> <p>There is evidence that ablation of functioning ovaries in early breast cancer in women aged under 50 significantly improves long-term survival, at least in the absence of chemotherapy. Further randomised evidence is needed on the additional effects of ovarian ablation in the presence of other adjuvant treatments, and to assess the relevance of hormone-receptor measurements.ⁿ</p> <p>Some months of adjuvant polychemotherapy typically produces an absolute improvement of about 7-11% in 10-year survival for women aged under 50 at presentation with early breast cancer, and of about 2-3% for those aged 50-69 (unless their prognosis is likely to be extremely good even without such treatment). Treatment decisions involve consideration not only of improvements in cancer recurrence and survival but also of adverse side-effects of treatment, no recommendations are offered as to who should or should not be treated.^o This review is ongoing.^p</p> <p>Evidence suggests that combined cytotoxic and endocrine adjuvant therapies might be the most effective use of available treatments for most, if not all, patients with operable breast cancer.^q</p> <p>A review on follow-up strategies for women treated for early breast cancer is in preparation.^r Evidence from a consensus statement suggests that mammography at one or two-year intervals, depending on the type of primary surgery and age of the patient, is the most effective follow-up after primary treatment. Evidence does not call for the routine use of any other instrumental test.^s</p>	<p>Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>i. Early Breast Cancer Trialists' Collaborative Group. Immunotherapy for early breast cancer. [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>j. Early Breast Cancer Trialists' Collaborative Group. Systemic treatment of early breast cancer by hormonal, cytotoxic, or immune therapy. 133 randomised trials involving 31,000 recurrences and 24,000 deaths among 75,000 women. <i>Lancet</i> 1992;339:71-85.</p> <p>k. Early Breast Cancer Trialists' Collaborative Group. Ovarian ablation in early breast cancer: overview of the randomised trials. [Cochrane Review] In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>Early Breast Cancer Trialists' Collaborative Group. Tamoxifen for early breast cancer: an overview of the randomised trials. <i>Lancet</i> 1998; 351:1451-67</p> <p>Early Breast Cancer Trialists' Collaborative Group. Ovarian ablation in early breast cancer: overview of the randomised trials. <i>Lancet</i> 1996;348:1189-96.</p> <p>Early Breast Cancer Trialists' Collaborative Group. Polychemotherapy for early breast cancer: an overview of the randomised trials. <i>Lancet</i> 1998;352:930-42.</p> <p>Hall PD, Leshner BA, Hall RK. Adjuvant therapy of node-negative breast cancer. <i>Annals of Pharmacotherapy</i> 1995;29:289-98.</p> <p>l. Early Breast Cancer Trialists' Collaborative Group. Tamoxifen for early breast cancer: an overview of the randomised trials. <i>Lancet</i> 1998;351:1451-67.</p> <p>m. Early Breast Cancer Trialists' Collaborative Group. Tamoxifen for early breast cancer. [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>n. Early Breast Cancer Trialists' Collaborative Group. Ovarian ablation in early breast cancer: overview of the randomised trials. <i>Lancet</i> 1996;348:1189-96.</p> <p>o. Early Breast Cancer Trialists' Collaborative Group. Polychemotherapy for early breast cancer: an overview of the randomised trials. <i>Lancet</i> 1998;352:930-42.</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C34 (cont) Ensure rapid specialist treatment for cancers when they are diagnosed (cont)</p>	<p>Chemotherapy and hormonal therapy for women with metastatic breast cancer, offers a modest survival benefit but there is no evidence on the impact on quality of life.[†] The effectiveness of tamoxifen appears similar to ovarian ablation in premenopausal women with metastatic breast cancer.^u</p> <p>Strong evidence supports the use of bisphosphonates to reduce both skeletal events (osteoporosis, osteolysis and pathologic fractures) and pain in multiple myeloma and in breast cancer patients with metastatic bone disease. Evidence also suggests bisphosphonates are useful as part of a pain management program for bone metastases from carcinoma of the breast, lung, and prostate, and for symptomatic myeloma. The bisphosphonates appear to be well tolerated.^v</p>	<p>p Early Breast Cancer Trialists' Collaborative Group. Multi-agent chemotherapy for early breast cancer. [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>q. Colleoni M, Coates A, Pagani O, Goldhirsch A. Combined chemo-endocrine adjuvant therapy for patients with operable breast cancer: still a question? <i>Cancer Treatment Reviews</i> 1998;24:15-26.</p> <p>r. Fossati R, Confalonieri C, Liberati A. Follow-up strategies for women treated for early breast cancer [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>s Anonymous Consensus statement of the jury. Consensus Conference on 'Follow-up of Breast Cancer Patients'. <i>Annals of Oncology</i> 1995;6 (Suppl 2):69-70.</p> <p>t. Fossati R, Confalonieri C, Torri V, Ghislandi E, Penna A, Pistotti V, Tinazzi A, Liberati A. Cytotoxic and hormonal treatment for metastatic breast cancer: A systematic review of published randomized trials involving 31,510 women. <i>Journal of Clinical Oncology</i> 1998;16:3439-60.</p> <p>u. Crump M, Sawka CA, DeBoer G, Buchanan RB, Ingle JN, Forbes J, Meakin JW, Shelley W, Pritchard KL. An individual patient-based meta-analysis of tamoxifen versus ovarian ablation as first line endocrine therapy for premenopausal women with metastatic breast cancer. <i>Breast Cancer Research and Treatment</i> 1997;44:201-10.</p> <p>v. Bloomfield DJ. Should bisphosphonates be part of the standard therapy of patients with multiple myeloma or bone metastases from other cancers? An evidence-based review. <i>Journal of Clinical Oncology</i> 1998;16:1218-25.</p> <p>a. NHS Executive. Guidelines on improving outcomes in colorectal cancer. London: Department of Health, 1997.</p> <p>b. MacRae HM, McLeod RS. Handsewn vs stapled anastomoses in colon and rectal surgery: a meta-analysis. <i>Diseases of the Colon and Rectum</i> 1998;41:180-9.</p> <p>c. NHS Executive. Guidelines on improving outcomes in colorectal cancer. London: Department of Health, 1997.</p> <p>NHS Centre for Reviews and Dissemination. The management of colorectal cancer. Effective Health</p>
<p>C34 (cont) Ensure rapid specialist</p>	<p><u>Colorectal Cancer:</u></p> <p>In early colorectal cancer surgery, care must be taken to remove tumour involvement at the circumferential margins, since such involvement is associated with high recurrence rates of colorectal cancer.^a Routine pre-operative radiotherapy can improve outcome in patients with rectal cancer <i>except</i> in cases where there are low (<10%) local recurrence rates.^a</p> <p>In surgery for colorectal cancer, intra-operative technical problems and</p>	

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treatment for cancers when they are diagnosed (*cont*)

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postoperative strictures were more common with stapled anastomoses than hand sewn anastomoses, but there were no differences detected in other outcomes.^b

The use of prolonged (>3months) systemic chemotherapy, particularly if established early on, can improve survival in early operable colorectal cancer.^c Evidence suggests that adjuvant 5-fluorouracil (5-FU) chemotherapy (with or without other cytotoxic drugs) delivered through the portal vein for about 1 week directly after surgery in patients with colorectal cancer may produce an absolute improvement in 5 year survival of around 5% percent. This evidence, however, is not strong.^d

Continuous infusion of 5-FU is superior to bolus 5-FU when used in advanced colorectal cancer.^e Modulation of 5-FU by methotrexate doubles the response rate compared to 5-FU alone and yields a small improvement in survival.^f Evidence shows the benefit of biomodulation of 5-fluorouracil by leucovorin.^g

Hepatic artery infusion chemotherapy increases survival over systemic chemotherapy in patients with colorectal cancer that has metastasized to the liver.^h

Intensive follow-up detects more recurrent cancers at a stage amenable to curative resection, resulting in an improvement in survival.ⁱ

Central Nervous System cancers:

There is a lack of data from high quality studies testing the utility of stereotactic radiotherapy for brain metastases.^a

Radiotherapy only produces modest survival benefits for gliomas but is more effective than chemotherapy.^b The addition of chemotherapy to radiotherapy for malignant gliomas improves survival.^c

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treatment for cancers when they are diagnosed (*cont*)

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Single agent versus multiple agent drug chemotherapy does not show a benefit for combination chemotherapy regimens in patients with high grade astrocytoma.^d

The effects of emergency treatment of malignant extradural spinal cord compression are unclear.^e

Testicular cancer:

A review on the role of bleomycin in the treatment of testicular cancer is in preparation.^a

Soft Tissue Sarcoma:

Doxorubicin-based adjuvant chemotherapy significantly improves recurrence-free survival in adults with resectable soft tissue sarcoma, but there is no clear evidence of an effect on overall survival.^a

Bladder cancer:

There is insufficient evidence to support the use of neo-adjuvant cisplatin-based chemotherapy for patients with locally advanced bladder cancer.^a

There is no evidence to support routine use of pre-operative radiation therapy in the treatment of muscle invasive bladder cancer.^b

Adjuvant intravesical chemotherapy for superficial bladder cancer prolongs disease-free interval but has no apparent long-term impact.^c

A review on the use of bacillus calmette-guerin (BCG) in high-risk superficial bladder cancer is underway.^d

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Intravesical Bacillus Calmette-Guerin (BCG) for

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treatment for cancers when they are diagnosed (*cont*)

SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE

Hepatocellular cancer:

There is no evidence to support routine use of tamoxifen in treating hepatocellular cancer.^a A combination of 5-fluorouracil, adriamycin and transarterial chemotherapy for hepatocellular cancer is not associated with survival benefit at 1 year.^b

There is no evidence that current non-surgical treatments for hepatocellular carcinoma are effective, either alone,^c or as adjuvant therapy.^d

Systematic review of chemotherapy for inoperable hepatocellular carcinoma is underway.^e

Bone neoplasms:

Use of a high dose intensity of methotrexate is associated with significant improvement in outcome (disease free survival) in patients with localized high grade osteosarcoma.^a

Chemotherapy improves survival in craniofacial osteosarcoma.^b

Pain relief obtained using radiotherapy for bone metastases is generally poor. Higher dose, fractionated radiotherapy treatments produce a greater frequency, magnitude, and duration of response with better pain relief.^c

Strong evidence supports the use of bisphosphonates to reduce both skeletal events (osteoporosis, osteolysis and pathologic fractures) and pain in multiple myeloma and in breast cancer patients with metastatic bone disease. Evidence also suggests bisphosphonates are useful as part of a pain management

(*cont*) Ensure rapid specialist

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	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34	treatment for cancers when they are diagnosed (<i>cont</i>)	<p>program for bone metastases from carcinoma of the breast, lung, and prostate, and for symptomatic myeloma. The bisphosphonates appear to be well tolerated.^d</p> <p><u>Renal cancer:</u></p> <p>A review on immunotherapy for advanced renal cell cancer is underway.^a</p> <p>The effect of interferon-alpha (IFN-alpha) as single agent or in combination in the treatment of metastatic malignant melanoma or of advanced renal cell carcinoma was evaluated in a recent meta-analysis. The reviewers found better response rates and prolonged survival were achieved for both diseases with regimens that included IFN-alpha.^b</p> <p><u>Skin cancer:</u></p> <p>There is no evidence that systemic treatments for metastatic cutaneous melanoma found are superior to best supportive care or placebo.^a</p> <p><u>Head and neck cancer:</u></p> <p>Transpupillary thermotherapy improves local tumour control in posterior choroidal melanoma.^a</p> <p>Survival following ruthenium plaque radiotherapy for uveal melanoma compares favourably with survival after enucleation for similarly sized tumours.^b</p> <p>Simultaneous use of chemotherapy and definitive local therapy for squamous cell carcinoma of the head and neck, improved survival but increased morbidity.^c</p> <p>Technical advances in radiotherapy offer the potential for better local tumour control in head and neck cancer, with less morbidity, but will require more sophisticated dose planning resources.^d</p> <p>There is no reliable evidence that pre-operative radiotherapy of an improved rate of survival in patients with resectable oesophageal cancer.^e</p>	<p>review. Journal of Clinical Oncology 1998;16:1218-25.</p> <p>a. Coppin C, Porzolt F, Kumpf J, Coldman A. Immunotherapy for advanced renal cancer. [Protocol for a Cochrane Review] The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>b. Hernberg M, Pyrhönen S, Muhonen T. Regimens with or without interferon-alpha as treatment for metastatic melanoma and renal cell carcinoma: an overview of randomized trials. Journal of Immunotherapy 1999; 22:145-54.</p> <p>a. Crosby T, Fish R, Coles B, Mason MD. Systemic treatments for metastatic cutaneous melanoma. [Cochrane Review]. In: The Cochrane Library, Issue 2, 2000. Oxford: Update Software.</p> <p>a. Gruterich M, Mueller AJ, Ulbig M, Kampik A. What is the value of transpupillary thermotherapy in treatment of flat posterior choroid melanomas? Klin Monatsbl Augenheilkd: 1999;215:147-51.</p> <p>b. Seregard S. Long term survival after ruthenium plaque radiotherapy for uveal melanoma. A meta-analysis of studies including 1066 patients. Acta Ophthalmologica Scandinavica 1999;77:414-7.</p> <p>c. El Sayed S, Nelson N. Adjuvant and adjunctive chemotherapy in the management of squamous cell carcinoma of the head and neck region. A meta-analysis of prospective and randomised trials. Journal of Clinical Oncology 1996;14:838-47.</p> <p>d. Moller T for SBU, the Swedish Council on Technology Assessment in Health Care. Head and Neck Cancer. Acta Oncologica 1996;35:22-45.</p> <p>e. Arnott SJ, Duncan W, Gignoux M, Girling DJ, Hansen HS, Launois B, Nygaard K, Parmar MK, Roussel A, Spiliopoulos G, Stewart LA, Tierney JF, Mei W, Rugang Z. (Oesophageal Cancer Collaborative Group). Pre-operative radiotherapy in esophageal carcinoma: a meta-analysis using individual patient data. International</p>
	(<i>cont</i>) Ensure rapid specialist		

CANCER: Services interventions

	<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
C34	treatment for cancers when they are diagnosed	<p><u>Leukaemia:</u></p> <p>No cures based on systemic therapy have been found for patients with cutaneous T-cell lymphomas, although both single and combined chemotherapeutic agents produce high response rates. No evidence has been found to recommend one particular agent over another, but systemic therapy can be considered effective and palliative.^a</p> <p>Conservative treatment strategies for chronic lymphatic leukaemia produce the best level of survival. This would be deferred chemotherapy for most patients with early-stage disease, and single-agent chlorambucil as the first line of treatment for most patients with advanced disease. No evidence of benefit from early inclusion of an anthracycline has been found.^b</p> <p>For patients with Philadelphia chromosome positive chronic myeloid leukaemia, alpha-interferon increases survival compared with standard chemotherapy.^c There is insufficient evidence of the effect in other types of chronic myeloid leukaemia.^c A new review of alpha-interferon for chronic myeloid leukaemia is underway.^d</p> <p>Intensive reinduction chemotherapy produces a small absolute improvement in long term survival in children with acute lymphoblastic leukaemia.^e</p> <p>CNS radiotherapy appears to result in cognitive deficits in children treated for acute lymphoblastic leukaemia.^f</p> <p>Evidence suggests that induction regimens based on idarubicin achieve better remission rates and better overall survival than those based on daunorubicin.^g</p> <p><u>Haematological cancer:</u></p> <p>Combined radiotherapy and chemotherapy for Hodgkin's disease has a significantly inferior survival compared to chemotherapy alone.^a In early stage Hodgkin's Disease patients, less intensive primary treatment, particularly a reduction in radiotherapy fields, appears to achieve similar survival rates to more intensive treatment.^b</p> <p>Early stage Hodgkin's disease in children is mostly curable but that there is not enough evidence to show which treatments are best in the long term.^c</p>	<p>Journal of Radiation Oncology, Biology, Physics. 1998;41:579-83.</p> <ol style="list-style-type: none"> Bunn PA, Hoffman SJ, Norris D. Systemic therapy of cutaneous T-cell lymphomas (mycosis fungoides and the Sezary syndrome). <i>Annals of Internal Medicine</i> 1994;121:592-602. CLL Trialists' Collaborative Group. Chemotherapeutic options in chronic lymphocytic leukemia: a meta-analysis of the randomised trials. <i>Journal of the National Cancer Institute</i> 1999;91:861-8. Chronic Myeloid Leukemia Trialists' Collaborative Group. Interferon alfa versus chemotherapy for chronic myeloid leukemia: a meta-analysis of seven randomised trials. <i>J National Cancer Inst</i>: 1997;89:1616-20. Baillie K. Alpha-interferon for chronic myeloid leukaemia [Protocol for a Cochrane Review]. The Cochrane Library, Issue 1, 2000. Oxford: Update Software. Childhood ALL Collaborative Group. Duration and intensity of maintenance chemotherapy in acute lymphoblastic leukaemia: overview of 42 trials involving 12,000 randomised children. <i>Lancet</i> 1996;347:1783-8. Cousens P, Waters B, Said J, Stevens M. Cognitive effects of cranial irradiation in leukaemia: a survey and meta-analysis. <i>Journal of Child Psychology and Psychiatry and Allied Disciplines</i> 1988;29:839-52. AML Collaborative Group. A systematic collaborative overview of randomized trials comparing idarubicin with daunorubicin (or other anthracyclines) as induction therapy for acute myeloid leukaemia. <i>British Journal of Haematology</i> 1998;103:100-9. Loeffler M, Brosteanu O, Hasenclever D, Sextro M, Assouline D, Bartolucci AA, Cassileth PA, Crowther D, Diehl V, Fisher RI, Hoppe RT, Jacobs P, Pater JL, Pavlovsky S, Thompson E, Wienik P. Meta-analysis of chemotherapy versus combined modality treatment trials in Hodgkin's disease. <i>Journal of Clinical Oncology</i> 1998;16:818-29. Specht L, Gray RG, Clarke MJ, Peto R. Influence of more extensive radiotherapy and adjuvant chemotherapy on long-term outcome of early stage Hodgkin's disease:
C34	(cont) Ensure rapid specialist treatment for cancers when		

CANCER: Services interventions

POLICY

they are diagnosed (*cont*)

SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE

High-dose myeloablative therapy and progenitor cell transplantation (HDT/PCT) has not been found to be either superior or inferior in terms of survival when compared to conventional therapy for the treatment of various malignancies.^d

It is uncertain whether alpha interferon maintenance treatment for patients with multiple myeloma offers any survival advantage.^e

Strong evidence supports the use of bisphosphonates to reduce both skeletal events (osteoporosis, osteolysis and pathologic fractures) and pain in multiple myeloma and in breast cancer patients with metastatic bone disease. Evidence also suggests bisphosphonates are useful as part of a pain management program for bone metastases from carcinoma of the breast, lung, and prostate, and for symptomatic myeloma. The bisphosphonates appear to be well tolerated.^f

A review of clodronate vs pamidronate for hypercalcaemia in multiple myeloma is underway.^g

General cancer:

Evidence published between 1970 and 1998 suggests that the prevalence of complementary and/or alternative therapy (CAM) use among patients with cancer ranges from 7-64%, with an average prevalence of 31.4%. The wide range of prevalence for CAM use was not explained by either regional variations or increasing popularity over time and was considered to be due to different understandings of "complementary/alternative medicine" on the part of both investigators and patients.^a

There is no evidence that mistletoe affects cancer outcome.^b

The literature on psychosocial interventions for children and adolescents with chronic medical illness is of such poor quality that no conclusions could be drawn about its effectiveness.^c

A review on short versus long duration infusions of paclitaxel for any

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CANCER: Services interventions

POLICY	SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE	REFERENCES
People can:	advanced adenocarcinoma is underway. ^d	
C35 Attend cancer screenings when invited (ie for breast and cervical screening in women)	<p>Cancer screening attendance increases with interventions targeting either the physician or the patient.^a</p> <p>No systematic reviews have been identified on the impact of such strategies on cancer death rates.</p>	a. Snell JL, Buck EL. Increasing cancer screening: a meta-analysis. <i>Preventive Medicine</i> 1996; 25:702-7.
C36 Participate in managing their own illness and treatment (<i>cont</i>)	<p>Providing cancer patients with both written and verbal information about diagnosis and treatment options on a routine basis improves patient satisfaction and patient knowledge about their condition, and it has not been shown to increase anxiety.^a The provision of recordings or summaries of key consultations may benefit most adults with cancer.^b</p> <p>Psycho-educational care for adults with cancer decreases anxiety, relieves depression, improves mood, nausea, pain and vomiting and increases patients' knowledge about their condition.^c</p> <p>Shared decision-making programmes are well received by patients and can be used with a wide variety of health problems.^d A review on decision aids for people facing health treatment or screening decisions is underway.^e</p> <p>Decision aids improve knowledge, reduce decisional conflict, and stimulate patients to be more active in decision making without increasing their anxiety. Decision aids have little effect on satisfaction and a variable effect on decisions. The effects on outcomes of decisions (persistence with choice, quality of life) remain uncertain.^f</p> <p>The full benefits of medications cannot be realised at current levels of adherence. Current methods of improving adherence to follow prescriptions are complex and not very effective.^g</p>	<p>a. NHS Executive. Guidelines on improving outcomes in breast cancer. London: Department of Health, 1997. NHS Executive. Guidelines on improving outcomes in colorectal cancer. London: Department of Health, 1997. NHS Executive. Guidance on commissioning cancer services: improving outcomes in lung cancer. London: Department of Health, 1998.</p> <p>b. Scott JT, Entwistle VA, Sowden AJ, Watt I. Recordings or summaries of consultations for people with cancer [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>c. Devine EC. Effects of psycho-educational care for adults with cancer: a meta-analysis of 116 studies. <i>Oncology Nursing Forum</i> 1995;22:1319-81.</p> <p>d. Anderson D.. Shared decision-making programs: descriptive analysis of experience with shared decision making programs in VA. <i>Technology Assessment Program</i> 1997;6:1-12.</p> <p>e. O'Connor AM, Fiset V, Rostom A, Tetroe JM, Entwistle V, Llewellyn-Thomas HA, Holmes-Rovner M, Barry M, Jones J. Decision aids for people facing health treatment or screening decisions [Protocol for a Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>f. O'Connor A M, Rostom A, Fiset V, Tetroe J, Entwistle V, Llewellyn-Thomas H, Holmes-Rovner M, Barry M, Jones J. Decision aids for patients facing health treatment or screening decisions: systematic review. <i>BMJ</i> 1999; 319:731-4.</p> <p>g. Haynes RB, Montague P, Oliver T, McKibbin KA, Brouwers MC, Kanani R. Interventions for helping</p>

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<i>POLICY</i>	<i>SYSTEMATIC REVIEWS OF RELEVANT EVIDENCE</i>	<i>REFERENCES</i>
<p>C37 Seek medical advice promptly if they notice danger signs</p>	<p>Evidence suggests that one third of women with breast cancer symptoms delay seeking help for 3 or more months^a and that delays in diagnosing breast cancer of 3-6 months are associated with lower survival.^b</p> <p>No systematic reviews have been identified on the effect of interventions to reduce delay in diagnosis on survival rates.</p>	<p>patients to follow prescriptions for medications [Cochrane Review]. In: The Cochrane Library, Issue 1, 2000. Oxford: Update Software.</p> <p>a. Facione NC. Delay versus help seeking for breast cancer symptoms: a critical review of the literature on patient and provider delay. <i>Social Science and Medicine</i> 1993;36:1521-34.</p> <p>b. Richards MA, Westcombe AM, Love SB, Littlejohns P, Ramirez AJ. Influence of delay on survival in patients with breast cancer: a systematic review. <i>Lancet</i> 1999; 353:1119-26.</p>

CANCER: Additional evidence

Drinking water

Chlorination by-products in drinking water are associated with an increased risk of bladder and rectal cancer.^a

A systematic review is being carried out to assess effects of drinking water fluoridation.^b

Treatment of side-effects associated with cancer treatments

Several reviews have examined effective treatment for side-effects in cancer patients.

Antifungal therapy is effective in cancer patients with neutropenia.^a Fluoroquinolones plus other antibiotics significantly reduce the occurrence of gram negative and positive bacteremia without affecting the incidence of morbidity or mortality in patients receiving chemotherapy.^b Quinolone prophylaxis substantially reduces the incidence of various infection-related outcomes but not deaths in cancer patients who are neutropenic following chemotherapy.^c

P6 acupuncture seems to be an effective antiemetic technique.^d 5-HT3 antiemetics have similar efficacy to high dose metoclopramide, with fewer side-effects.^e

Reviews of the effects of non-surgical interventions for late radiation cystitis and proctitis in patients who have received radical radiotherapy to the pelvis are underway.^f

There is some evidence that ice chips prevent mucositis in patients receiving chemotherapy. None of the other prophylactic agents in the review prevented mucositis although prophylactic antifungal agents reduced the incidence of oral candidiasis.^g A review of treatment of oral mucositis in patients receiving chemotherapy is underway.^h Another review is being prepared assessing the effects of treatment of oral candidiasis for cancer patients receiving chemotherapy and/or radiotherapy.ⁱ

The value of conservative management strategies for post prostatectomy incontinence remains uncertain.^j

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