education

MALCOLM WILLETT

PUBLIC HEALTH

ART OF MEDICINE

Educating future doctors on industry pressure

Recent studies have drawn attention to the influence of industry sectors such as tobacco and alcohol on public health policy.¹⁻⁴

The fundamentals of public health policy are widely taught to medical undergraduates, but this training typically assumes that the ultimate motive behind policy decisions is the improvement of population wellbeing, albeit within finite resources. The training doesn't usually consider the potential external pressure on these decisions from those with vested interests.

Critical appraisal of clinical trial studies is, appropriately, a part of the curriculum in all UK medical schools, reflecting the importance attached to the ability of clinicians to understand the evidence base behind therapeutic interventions and assess the validity of a study. Understanding inaccurate data analysis and identifying sources of bias and competing interests are vital to practising evidence based medicine.

We suggest therefore that medical education reflects public health policy making in the real world in a similar way, preparing future doctors to assess the validity and potential sources of bias in industry media statements and in proposed health legislation.

The ongoing tension between public health legislation and the interests of the tobacco, alcohol, and food industries means that commercial pressure on public health policy decisions is likely to remain prevalent. Failure to prepare the future generation of doctors for this situation risks inaccurate or misleading information being used unchallenged to guide future health policy.

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PRACTICE UPDATES

Quality standards for blood transfusion

Offer oral iron before and after surgery to patients with iron deficiency anaemia says new draft NICE guidance that aims to reduce adverse effects after blood transfusion.

- Patients who receive a single unit red blood cell (RBC) transfusion, or an equivalent volume, should be clinically reassessed and have haemoglobin levels checked after transfusion
- Restrictive RBC transfusion thresholds are not recommended for those with major haemorrhage or acute coronary syndrome, or who need regular transfusions for chronic anaemia
- Give both verbal and written information to patients receiving a transfusion that covers the risks and benefits.
- http://bit.ly/28RXTfK

Physical activity to be encouraged

Encourage patients to undertake physical activity for one hour spread throughout the day, says the Royal College of General Practitioners. Without regular physical activity, patients may be increasing their risk of major health problems, including cancer, cardiovascular disease, obesity, and diabetes. Rising rates of obesity and diabetes are costing the NHS billions every year.

http://bit.ly/2bya9Ry



FAST FACT—STATINS IN HEART FAILURE

Heart failure in isolation is not an indication for treatment with a statin. However, it is important to bear in mind that the 2014 guidance from the National Institute for Health and Care Excellence (NICE) on lipid modification recommends offering treatment with a statin for primary prevention to all patients with a \geq 10% 10 year risk of developing cardiovascular disease, as well as for secondary prevention to all patients with established cardiovascular disease.



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GUIDELINES

Non-alcoholic fatty liver disease (NAFLD): summary of NICE guidance

Jessica Glen, ¹ Lefteris Floros, ¹ Chris Day, ² Rachel Pryke, ³ on behalf of the Guideline Development Group

Non-alcoholic fatty liver disease (NAFLD) is a spectrum of disease from fatty liver to non-alcoholic steatohepatitis, fibrosis, and cirrhosis. At the least advanced end of the spectrum, non-alcoholic fatty liver (NAFL) is an excess of fat in the liver (steatosis) present in 20-30% of the general population and is largely asymptomatic. 1-4 Currently, diagnosis of NAFLD is most commonly made through incidental findings, such as ultrasonography for investigation of persistently abnormal liver function tests, when other suspected causes have been ruled out.

In around 5-6% of patients with NAFL only the condition progresses to non-alcoholic steatohepatitis (NASH), fibrosis, or cirrhosis (see fig 1). In this small group there is a risk of death from liver failure or hepatocellular carcinoma, or needing a liver transplant.

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Further information about the guidance, a list of members of the guideline development group, and the supporting evidence statements are in the full version on thebmj.com.

This is an edited version of the paper, full version on thebmj.com

There has been a lack of national guidance and care pathways for primary care on when to offer testing for NAFLD. Investigation and referral of suspected NAFLD vary widely. There is currently no licensed treatment for NAFLD, and most people are managed by their general practitioner with a focus on lifestyle advice.

This article summarises the most recent recommendations from the National Institute for Health and Care Excellence (NICE) on the assessment and management of NAFLD.⁷

Recommendations

NICE recommendations are based on systematic reviews of best available evidence and explicit consideration of cost effectiveness. When minimal evidence is available, recommendations are based on the Guideline Development Group's experience and opinion of what constitutes good practice.

Assessment of non-alcoholic fatty liver disease (NAFLD)
Figure 2 outlines the assessment of NAFLD in primary care.

Diagnosing NAFLD

The gold standard for diagnosis of NAFLD is liver biopsy, which is too high risk for routine investigation in a population of patients who are likely to be asymptomatic.

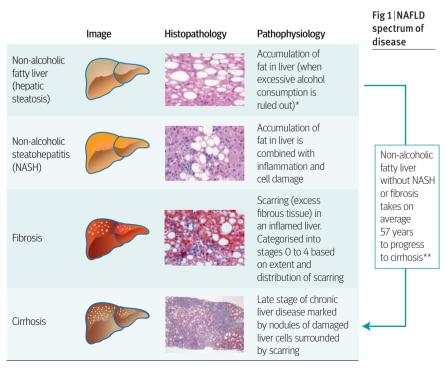
WHAT YOU NEED TO KNOW

- Screening for non-alcoholic fatty liver disease (NAFLD) in adults is not recommended by the guideline due to lack of evidence
- Offer children with type 2 diabetes or metabolic syndrome screening for NAFLD using liver ultrasonography
- Lifestyle modification is the only evidence based management for NAFLD
- Offer adults with NAFLD screening for advanced liver fibrosis every three years using the enhanced liver fibrosis (ELF) blood test
- Offer children with NAFLD screening for advanced liver fibrosis every two years using the ELF blood test

GUIDELINES INTO PRACTICE

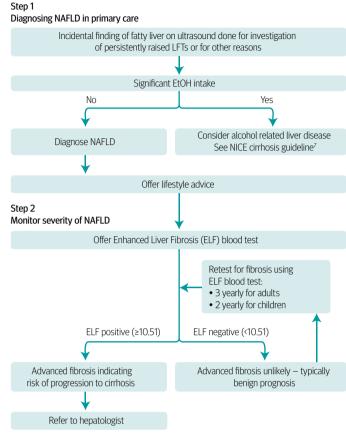
Have your patients with fatty liver had an alcohol history taken?

Have your patients with NAFLD had an ELF blood test to assess fibrosis risk?



*The prevalence in the general population for different stages of non-alcoholic fatty liver disease is uncertain.

**The evidence for progression does not take into account the effect of interventions explored in the guideline that may modify progression such as lifestyle changes or pharmacological therapy.



*Note: abnormal LFTs are not diagnostic for NAFLD and may be normal or raised

Fig 2 \mid Outline of the assessment of non-alcoholic fatty liver disease (NAFLD) in primary care

The Guideline Development Group (GDG) hypothesised that, if a simple, cost effective, non-invasive test were available to identify NAFLD, people could be identified early to ensure adequate monitoring and timely attempts to prevent progression to advanced disease endpoints.

However, there was no evidence to support non-invasive testing for NAFLD in adults, including those with risk factors such as type 2 diabetes or metabolic syndrome.

- Take an alcohol history to rule out alcohol related liver disease.
 See also NICE's cirrhosis guideline.
- Do not use routine liver blood tests to rule out NAFLD.

Diagnosing NAFLD in children and young people

Estimates of the prevalence of NAFLD in children are lower than in the general population (7-10%), increasing to 30% in obese paediatric populations. $^{9\cdot11}$

- Offer a liver ultrasonography scan to test children and young people for NAFLD if they:
 - Have type 2 diabetes or metabolic syndrome and
 - Do not misuse alcohol.

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

Patients were not involved in the creation of this summary article. However, committee members involved in this guideline included lay members who contributed to the formulation of the recommendations summarised here. Patient organisations were among the registered stakeholders who were consulted at both scoping and development stages.

Enhanced liver fibrosis (ELF) blood test

The ELF blood test is used to measure liver damage. It uses an algorithm of three serum biomarkers to calculate an ELF score:

- Hyaluronic acid
- Procollagen III amino terminal peptide
- Tissue inhibitor of metalloproteinase 1.

Management of people with NAFLD

Adults and young people identified with NAFLD through incidental findings can continue to be managed in primary care. The only evidence based management for people with NAFLD is lifestyle modification.

Lifestyle modifications for NAFLD

- Manage people with NAFLD who are overweight or obese in line with the recommendations on physical activity and diet in NICE's obesity and preventing excess weight gain guidelines.^{12 13}
- Explain to people with NAFLD who drink alcohol the importance of staying within the national recommended limits for alcohol consumption.

People with NAFLD who are taking statins

• Advise people with NAFLD to keep taking statins.

Assessment for advanced liver fibrosis in people with NAFLD

Severe liver fibrosis has consistently been shown to indicate a poor prognosis in people with NAFLD. ⁴⁻¹⁵ Therefore, people with advanced fibrosis require the closest monitoring and have the most to gain from pharmacotherapy slowing or reversing the condition. Of currently available non-invasive tests for identifying NAFLD patients with fibrosis, the enhanced liver fibrosis (ELF) blood test (see box) was found to be most cost effective in identifying patients with advanced liver fibrosis (stages 3 and 4).

Identifying people with advanced liver fibrosis

- Offer testing for advanced liver fibrosis to all people incidentally identified with NAFLD using the ELF blood test.
- Diagnose people incidentally identified with NAFLD with advanced liver fibrosis if they have an ELF blood test score or ≥10.51.
- Offer retesting for advanced liver fibrosis for people with an ELF blood test score <10.51:
 - Every three years for adults
 - Every two years for children and young people.
- Refer adults and young people diagnosed with advanced liver fibrosis to a relevant specialist in hepatology.

Pharmacological treatment in people with advanced liver fibrosis

 Adults, children, and young people with advanced liver fibrosis should be managed within secondary or tertiary care, and pharmacological treatment, such as pioglitazone and vitamin E, can be considered in this setting.

Implementation

The GDG hope the recommendations in this guideline will reduce unnecessary testing and target active management for those at highest risk of advanced disease.

 The GDG acknowledge this may lead to the identification of most people with non-alcoholic steatohepatitis and advanced fibrosis at the expense of missing some affected people

 $\label{lem:competing interests: We declare interests based on NICE's policy on conflicts of interests. Full details on the bmj.com$

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CLINICAL UPDATES

Anticancer chemotherapy in teenagers and young adults: managing long term side effects

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This is an edited version; the full version is on thebmj.com

Cancer is the leading cause of disease related death in teenagers and young adults (TYAs) in Western countries. ¹² In the UK, cancer in TYAs accounts for 9% and 15% of all male and female deaths respectively, and its incidence has risen by 19% since the mid-1990s, leading to 2300 new cases a year between 2011 and 2013. ¹ This article provides information for generalists on late effects of anticancer chemotherapy (see infographic) that may affect quality of life. Radiotherapy related effects are not discussed but are summarised elsewhere. ⁴



1 CREDIT

Defining teenagers and young adults

There is no internationally accepted age definition for TYAs. In the UK, TYA age is 15-24 years, whereas the US National Cancer Institute defines adolescents and young adults as aged 15-39 years. In this review we use the UK definition of 15-24 years.

Types and prognoses of cancer in TYAs

Table 1 lists common cancers seen in TYAs.

Chemotherapy plays a major role in the treatment of these cancers, and TYAs are potentially exposed to a wide range of chemotherapy agents, each with distinct late effects. A comprehensive literature review highlighted that these effects are generally different from those seen in younger children and adults, specifically in terms of cardiac toxicity, second malignancies, pulmonary complications, and psychosocial difficulties. The reasons for this are not fully established, but it is partly because younger patients receive more intensive chemotherapy regimens and usually live longer, and thus have more time to develop late effects.

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

A Facebook group used by teenage and young adult (TYA) cancer survivors in our region was used to ask if any TYAs would be interested in sharing their views and helping to write the manuscript. One responder has written a patient story while another provided detailed advice on how to focus the article and reviewed the final version. These comments specifically ensured that the article highlighted that the list of late effects in the infographic did not include every side effect possible and that the psychological effect of having peers who die during or after treatment is important.

WHAT YOU NEED TO KNOW

- Side effects of anticancer chemotherapy in teenagers and young adults (TYAs) may occur decades after initial treatment
- Ensure patients and care providers have access to details of the treatment received and the potential side effects that may occur
- Have a low threshold for suspicion of second cancers and discuss participation in routine cancer screening programmes
- · Actively ask about psychosocial issues in TYAs at follow-up
- Offer referral to fertility preservation services to all TYAs before cytotoxic chemotherapy

Table 1 | Top eight cancer types by age group (data from Cancer Research UK)

	Children (0-14 years old) (1555 new cases/year)		Teenagers and young adults (15-24 years old) (2014 new cases/year)	
	Cancer type	% of total	Cancer type	% of total
1	Leukaemia	30.1	Lymphomas	21.0
2	Brain, other CNS, and intracranial tumours	26.5	Carcinomas	19.5
3	Lymphomas	10.7	Germ cell tumours	15.4
4	Soft tissue sarcoma	6.3	Brain, other CNS, and intracranial tumours	13.7
5	Sympathetic nervous system tumours	5.3	Malignant melanoma	11.2
6	Renal tumours	5.3	Leukaemias	8.8
7	Bone sarcoma	4.2	Bone tumours	5.1
8	Carcinomas and malignant melanoma	3.5	Soft tissue sarcomas	4.0

What are the late effects of chemotherapy? Cardiovascular disease

Chemotherapy is associated with delayed cardiovascular complications including coronary artery disease, ventricular failure, and hypertension. A Danish cohort study of more than 43 000 TYA cancer survivors found an absolute excess risk of up to 400 extra hospitalisations due to cardiovascular disease per 100 000 person-years in survivors compared with the control group. A similar US study identified a twofold increased risk of cardiovascular disease, which adversely affected survival. These associations have been confirmed in specific cancer subtypes such as Hodgkin's lymphoma and testicular cancer, where treatment regimens often contain anthracyclines and cisplatin.

The estimated risk of cardiac complications in TYAs is compounded by the fact that some patients will also receive mediastinal radiotherapy.

Identifying and managing cardiovascular complications
Regardless of therapy received, offer all TYA cancer
survivors lifestyle advice to reduce their risk of
cardiovascular disease. Robust evidence showing the
effectiveness of prevention strategies does not yet exist.
Consider coronary artery disease in all patients who present
with chest pain regardless of age if they have a history
of chemotherapy. There are no standardised guidelines
for ventricular function screening after chemotherapy,

but offer this to high risk patients, such as those with a history of anthracyclines or mediastinal radiotherapy. Systolic function can be assessed by echocardiography or a MUGA (multigated acquisition) scan (infographic). Offer women with any of the risk factors above who become pregnant echocardiography in the second trimester. For the management of left ventricular dysfunction, the best evidence supports ACE inhibitors with β blockers. $^{13\,14}$

Fertility

Loss of fertility can be distressing to cancer survivors. 1617 Chemotherapy induced infertility occurs primarily due to dose dependent gonadal toxicity, and alkylating agents such as cyclophosphamide and procarbazine are often implicated. 18

The Childhood Cancer Survivor Study found the relative risk of long term survivors becoming pregnant was 0.81 compared with healthy sibling controls. TYAs comprised 20% of the study cohort.²⁰

The risk to fertility after chemotherapy generally increases with age at treatment. 21 22 In a study of women with Hodgkin's lymphoma, the cumulative risk of premature menopause five years after treatment was higher among those aged 22-28 years than in those aged 14-21 years $(27.2\% \, v \, 5.6\%)$. 21 Other factors such as concurrent radiotherapy to the gonadal region 23 also affect risk. Online risk calculators (see www.fertilehope.org/tool-bar/risk-calculator.cfm) are available to estimate an individual patient's risk.

Discuss fertility preservation early when agreeing a management plan and, given that treatment plans may change and that few regimens carry no risk of infertility, offer urgent referral to fertility preservation services for all TYA patients receiving any chemotherapy.²⁴ ²⁵ Options for fertility preservation are outlined in table 2 (see thebmj.com).



Chemotherapy plays a major role in treatment of cancer in TYAs

Second malignant neoplasms

Some 17-19% of all new primary cancers occur in cancer survivors. ³⁵ The reason why TYAs are at a greater risk of developing second malignant neoplasms than older survivors is unclear but may be because they receive more intensive drug schedules or because a proportion of patients already have a genetic predisposition to cancer.

Quantifying the risk of second malignant neoplasm from specific chemotherapy regimens is difficult because TYA cancer survivors may be at risk of second cancers due to genetic or environmental factors. Moreover, many protocols include radiotherapy, which itself is carcinogenic. However, several drugs have well established associations with a range of solid tumours. Alkylating agents, topoisomerase II inhibitors, and antimetabolites have been shown to induce therapy related acute myeloid leukaemia and myelodysplastic syndrome.

Currently the only guidelines that exist for screening of second malignant neoplasms are for women at risk of breast cancer having received thoracic radiotherapy. This primarily includes female survivors of Hodgkin's lymphoma (see infographic). In other patients, offer advice and support on lifestyle modifications known to reduce cancer risk. TYAs are recommended to follow cancer screening guidelines applicable to the general population. More intensive screening may be needed for patients with genetic predisposition to cancers.

Neurocognitive effects

Neurocognitive changes after chemotherapy can affect survivorship. ⁴⁰ Antimetabolites and anthracyclines have been implicated. Although the association has long been established in childhood cancers, ⁴¹ emerging evidence shows a similar effect in TYAs. A retrospective study of more than 2500 cancer patients aged 11-21 identified

deficiencies in emotional regulation, memory and task efficiency. 40 These individuals are likely to require additional psychological and social support (see infographic on next pages)



A PATIENT'S PERSPECTIVE

I was diagnosed at 14 years old with stage four Hodgkin's lymphoma and received six rounds of chemotherapy and two weeks of radiotherapy. After six months in remission, I relapsed and was treated with alternating IEP and ABVD chemotherapy, followed by high dose BEAM chemotherapy and a stem cell transplant.

During the course of my treatment, I missed almost two full years of education and was unable to take my GCSEs. I have found it far more difficult to be around people, developing social anxiety and

Having self confidence and dealing with my frustration is difficult

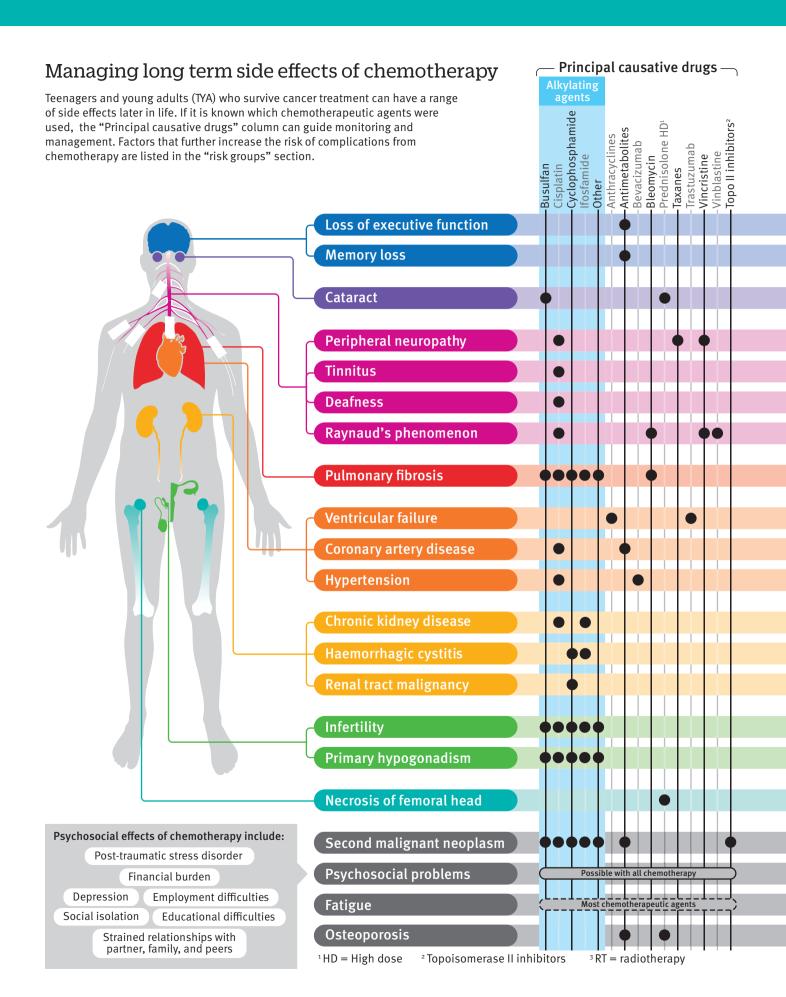
depression, for which I am being treated with medication and cognitive behavioural therapy. Having self confidence and dealing with my frustration is difficult, and I feel that I am a burden to my friends and family. It may help to have services within oncology that help with the emotional side effects while within the service, rather than after it.

I've also struggled with fatigue and have found it hard to work, even part time, and concentrate

on my A-levels. Within the service, there is not enough focus around fertility, and I have struggled to cope with being infertile, especially since no measures were taken to help prevent it due to my age. Having osteoporosis has been difficult too. However, the Teenage Cancer Trust has really helped me with my recovery and finding out how to be a person and not a patient, again.

Lily Anderson—
TYA cancer survivor

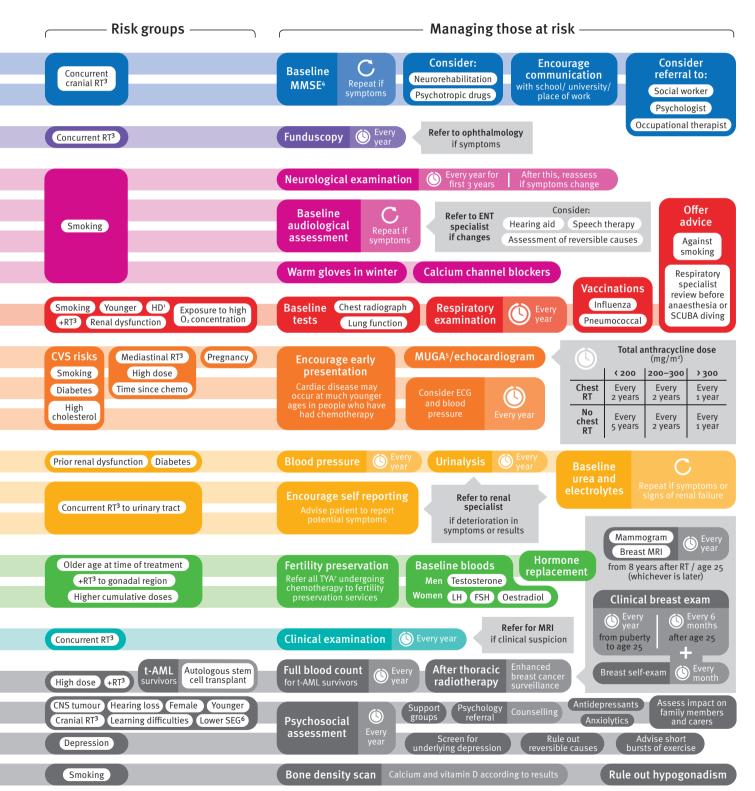
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⁴ Mini Mental State Examination 5 Multigated acquisition scan 6 SEG = socio-economic grouping 7 TYA = teenagers and young adults

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Fatigue

Cancer related fatigue is defined as a "distressing, persistent, subjective sense of physical, emotional, and/ or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning." A recent systematic review highlighted that fatigue can be a disabling problem in younger patients with cancer, and that urgent research is needed to identify effective management strategies. Fatigue affects 17-29% of all cancer survivors, and can have a great effect on quality of life and function. Reversible causes should be explored. Short bursts of exertion may be more manageable in these patients, and structured exercise routines, such as a moderate walking exercise programme, have proved to be helpful in improving fatigue and decreasing anxiety.

Psychosocial effects

It is difficult to untangle which psychosocial effects are a direct side effect of therapy as opposed to the physical and psychological sequelae of cancer diagnosis and treatment during a period of life associated with much change. A recent systematic review on this subject subdivides adolescents and young adults into three groups based on social needs. ⁴⁵ The review found that mid-adolescents (15-17 years old) are principally coping with the physical changes of puberty and the formation of a social identity, ⁴⁶ whereas emerging adults (18-25 years old) are often in the process of leaving their childhood home, obtaining higher education, and establishing social connections independent from childhood.

Social effects

A multicentre observational cohort study of TYA cancer survivors in the US found that, although over 72% of patients previously in full time employment or education had been able to return to full time enrolment at 15-35 months after diagnosis, more than half of this cohort reported difficulties with work or education, including problems with forgetting, keeping up, and paying attention. In the same study, over 60% of 498 survey respondents experienced a negative impact of cancer on their financial situation.

A negative body image due to cancer was reported by 61% of patients in the AYA HOPE study. 48 This may be associated with specific treatment side effects such as alopecia. 46 Any cognitive problems related to treatment may also hinder acquisition of social skills and lead to further problems with self esteem. 49

Psychological effects

Psychological issues among TYA cancer survivors include stress, anxiety, and depression, which may relate to the disruption of life goals, interpersonal relationships and self image, as well as fear of disease recurrence. ⁴⁹ In a recent Australian cross sectional study, 48% of cancer survivors aged 15-25 years fulfilled the diagnostic criteria for post-traumatic stress disorder (PTSD), ⁵⁰ and the risk factors included female sex, less social support, and issues with self image and identity. The parents of these cancer

TYAs should be involved in decision making from an early age, given ageappropriate information, and specifically asked about their understanding of the information

EDUCATION INTO PRACTICE

Do you offer cardiovascular and cancer prevention advice to teenage and young adult (TYA) cancer survivors to help reduce their risk of late effects such as cardiovascular disease and second cancers?

Do you know how to refer to local fertility services for TYAs who will receive cytotoxic chemotherapy?

survivors also had a 42% rate of PTSD, highlighting the need for family based psychological assessments and interventions.

A Canadian registry based study found that TYA cancer survivors were more likely to take antidepressants than healthy controls. ⁵¹ Social isolation is also observed among TYA cancer survivors, who may wish to connect with other TYAs with similar experiences. ⁵² However, this may cause negative psychological effects if peers relapse or die.

How can we best manage the psychosocial effects? The US National Comprehensive Cancer Network guidelines recommend that TYAs should be involved in decision making from an early age, given age-appropriate information, and specifically asked about their understanding of the information and for permission to share it with parents and others. ⁵³ Patient empowerment is important in optimising survivorship. TYAs may also wish to access self help groups or online peer support to connect with cancer patients or survivors of a similar age, as well as benefit from advice on how to discuss their diagnosis with others. ⁵²

The UK National Institute for Health and Care Excellence (NICE) recommends psychosocial needs assessment for patients up to the age of 24 years, and for their families or carers, and to offer appropriate specialist support at "key points" of care including long term follow-up, ⁵⁵ as well as early referral to fertility services.

Offer practical support, including referral to occupational health and social services (see infographic), and highlight sources of reliable information. Available resources range from tools for emotional self help, lists of counsellors, and support material for carers and family members, to information on fertility preservation, reasonable adjustments at work, insurance and mortgage issues, and benefits and financial assistance (such as free prescriptions for patients requiring treatment for side effects from cancer therapy).

How can we personalise long term care?

There is an increasing move among care providers, worldwide, to formulate individualised long term care plans for patients. These care plans would be developed between patients and their multidisciplinary care teams at the end of treatment. These plans can be shared with the patient and primary care provider and would include detail about the treatment regimen, potential late effects, and an individualised plan for monitoring. In the UK this forms part of the recovery package devised by the National Cancer Survivorship Initiative.

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Find this at: http://dx.doi.org/10.1136/bmj.i4567





SPOT DIAGNOSIS

Cold feet

A man in his 70s presented to hospital with delirium and hypothermia. He had a history of alcohol misuse and had not been seen for three days. He was found in the bathtub with wet clothing. The outside temperature on the days before admission was 10°C. He had loss of sensation in his feet with areas of ulceration and necrosis (figure). What is the diagnosis?

Submitted by Andrew McDonald Johnston and Joseph Singleton

Patient consent obtained.

Cite this as: BMJ 2016;354:i4584



SPOT DIAGNOSIS

A young man with recurrent limb shaking

A 24 year old man underwent a clinical examination because of recurrent limb shaking. Physical and mental examination revealed no abnormalities. Magnetic resonance imaging (MRI) was performed and a sagittal T1 weighted image obtained (fig 1). What is the diagnosis?

Submitted by Ke-Hua Pan and Ming-Hua Zheng

Patient consent obtained.

Cite this as: BMJ 2016;354:i4502

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Non-freezing immersion injury—"trench foot."

Cold feet

SISONDAID TO 4S



Dysgenesis of the corpus callosum (star) associated with interhemispheric lipoma (arrow) (fig 2).

A young man with recurrent limb shaking

SPOT DIAGNOSI'

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answers

MINERVA A wry look at the world of research

Ruptured Baker's cyst

A 62 year old man presented with sudden onset of pain, erythema, and swelling of the right calf.
Ultrasound confirmed a ruptured Baker's cyst and excluded deep vein thrombosis (DVT). He was treated with ultrasound guided aspiration.
Baker's cyst arises between the medial head of the gastrocnemius and the semimembranosus muscles.

Fluid from the ruptured cyst drains into this plane and causes medial calf swelling. Patients may stand with the knee and ankle flexed to relax the gastrocnemius (figure). The fluid causes inflammation of the surrounding tissue. Exclusion of DVT avoids unnecessary anticoagulation treatment, which can cause bleeding and posterior compartment syndrome

in these patients. Baker's cyst is usually managed by elevation of the leg, local heating, and non-steroidal anti-inflammatory drugs.

Tun Hing Lui (luithderek@yahoo.co.uk), Department of Orthopaedics and Traumatology, North District Hospital, Sheung Shui, NT, Hong Kong SAR, China Patient consent obtained.

Cite this as: *BMJ* 2016;353:i2929



Unshared decisions in prostate cancer

Age? Gleason score? Right, you'd better have a radical prostatectomy. Next please. It might not have been quite as crude as this, but a study of the way that urologists made decisions with 257 men with clinically localised prostate cancer in four US veterans' hospitals showed that patients' initial treatment preferences did not predict receipt of active treatment versus surveillance (Med Decis Making doi:10.1177/02729 89X16662841). Instead, active treatment was predicted primarily by urologists' recommendations, on the basis of medical factors alone rather than full discussion of patient important outcomes such as sexual function (mentioned in <15% of consultations).

Maternal sepsis

Fewer than two out of 100 000 pregnancies in the UK result in maternal death caused by sepsis, although between 2008 and 2010 the absolute risk of maternal admission to critical care with severe sepsis was 40 per 100 000 pregnancies (BMJ Open doi:10.1136/ bmjopen-2016-012323). So treatment is usually successful, but morbidity can be severe and deaths still occur, suggesting a need to improve timely recognition of severe respiratory tract and genital tract infection in the obstetric population.

Consent for cardiovascular procedures

Looking at consent processes for common cardiac procedures does not provide much reassurance about patient centred decision making either. A review of patient charts in one US hospital found wide variation in the presentation, content, and timing of informed consent (BMJ Qual Saf doi:10.1136/ bmjqs-2016-005663). Although a generic template was used for nearly all left heart catheterisations, transoesophageal echocardiography, and implantations of a cardioverter defibrillator, consent documents commonly lacked information specific to the procedure and patient. Hand written notes were often illegible, and consent was often obtained from patients just minutes before the procedure.

Talking about hospices in schools

Barriers don't come down without courage, and it must have taken some for staff at Strathcarron Hospice to go into primary schools and talk about their work. But they thought that children (aged 9-12) need to be involved in conversation, education, and support about death, dying, and bereavement to prepare them for all of life's stages (*BMJ Support Palliat Care* doi:10.1136/bmjspcare-2015-001092). They identified seven innovations to help these conversations and developed a model for integrated practice between hospices and schools.

Here be dragons

General practitioners are sometimes called the gatekeepers of the NHS, but before you can see one, you first need to pass another gatekeeper—the receptionist. She (men are rare) is a familiar butt of anecdote and television comedy, but a new study claims to be the first to examine how receptionists interact with patients on the telephone,

to identify features of communication associated with efficacy and patient satisfaction (*Br J Gen Pract* doi:10.3399/bjgp16X686653). The authors found that patients in some practices have to push for effective service when calling GP surgeries: not all stories about dragons are myths.

Drawing hip osteoarthritis pain

Primary care patients with hip osteoarthritis on the island of Funen, Denmark, were asked to mark the distribution of hip pain using a manikin displaying three separate views: front, back, and lateral. A total of 77% marked the greater trochanter area, 53% the groin area, 42% the anterior or lateral thigh area, 38% the buttock area, 17% the knee, and 15% the lower leg area. No patients marked pain exclusively in the areas of the knee, posterior thigh, or lower leg (Fam Pract doi:10.1093/fampra/cmw071).

Don't like the sound of that electroencephalogram

The history of sonification, the transformation of data into sound, goes back almost to the time when electroencephalography was first described in 1929. Five years later, the Nobel Prize winning electrophysiologist Edgar Adrian found that pattern recognition in electroencephalograms and other new electrophysiological measurements was often easier by sound than by graphics. The fascinating story is described in Brain (doi:10.1093/ brain/aww207), although sadly this does not include an audio clip of Music for the solo performer (1965) by Alvin Lucier, the first musical composition based on an electroencephalogram.

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