Are antibiotics laudable when letting out pus?

Pop goes the abscess, and out comes the creamy laudable pus. Youch, squeeze, and there’s a bit more. Put on a dressing and nature will usually do the rest. But not always: in this trial, 31% of small skin abscesses had not resolved by about three weeks after incision and drainage. That fell to 18% if the participants received either clindamycin or cotrimoxazole. In this American population, half the abscesses were caused by meticillin-resistant strains of *Staphylococcus aureus*. Clindamycin caused roughly twice the number of adverse effects as placebo or cotrimoxazole, so the latter seems to me the antibiotic of choice in this situation.

Electricity v escitalopram

Two milliamperes of direct current over half an hour is not a lot of electricity, but in a Brazilian trial this tiny zap delivered through the cranium (transcranial direct current stimulation) not only relieved depression, but even induced mania in a few people with unipolar depression. It was applied over 15 sessions every day (with weekend breaks) and then weekly for seven weeks. Meanwhile, other groups received sham electrotherapy with escitalopram, or placebo. The depressed people who did best were those who got escitalopram 20 mg daily, but the direct current was better than placebo. The investigators concluded that “non-inferiority could not be established” for transcranial direct current stimulation compared with escitalopram, and it also tended to cause “nervousness,” and local reactions around the electrode sites. Maybe this trial’s main value is in showing that escitalopram actually works better than placebo for some people, and so does a transcranial direct current stimulation for some. The really electrifying moment will come when we are able to match these treatments to individuals.

Aspirin to prevent pre-eclampsia

The title of this paper, “Aspirin versus placebo in pregnancies at high risk for preterm pre-eclampsia” produced so many waves of déjà vu that I wondered if I was having a temporal lobe fit. Here is why: “In 1979, a study showed that women who had taken aspirin regularly during pregnancy were less likely to have pre-eclampsia than women who had not. In the subsequent decades, more than 30 trials have investigated the benefit of low-dose aspirin (at a dose of 50 to 150 mg per day) for the prevention of pre-eclampsia; a meta-analysis of these studies showed that such treatment resulted in a 10% lower incidence of pre-eclampsia.”

So why another trial with a placebo group? The answer lies in the definition of a “high risk” group. Bear with me here: this might seem dweeby but I think it’s neat. You can use Bayes’ theorem to combine the a priori risk from maternal factors with biophysical and biochemical measurements obtained at 11 to 13 weeks of gestation. A study involving approximately 60 000 women with singleton pregnancies showed that such screening detected 76% of cases of preterm pre-eclampsia and 38% of cases of term pre-eclampsia, at a screen positive rate of 10%. So the investigators selected their 1776 participants on this basis, and the crude figures speak for themselves: “Preterm pre-eclampsia occurred in 13 participants (1.6%) in the aspirin (150 mg daily) group, as compared with 35 (4.3%) in the placebo group.”

Misoprostol v Foley catheter for inducing birth in India

Distending a Foley catheter balloon in the cervical canal is one way of inducing labour: giving oral misoprostol is another. The two methods were compared in two Indian hospitals, and the indication for induction was high blood pressure, either pre-existing or due to pre-eclampsia. Misoprostol induced labour more effectively and might have been safer in this setting, though the serious maternal and fetal events were too few to reach a definite conclusion.
Hepatitis C

Jawad Ahmad

Infection with hepatitis C virus (HCV) presents as an acute illness (such as fatigue, arthralgia, jaundice) in about a third of patients, but most patients are asymptomatic. After acute infection, up to 45% of young healthy patients may develop a vigorous antibody and cell mediated immune response, which leads to the spontaneous eradication of the virus. However, most infected patients fail to clear the virus. This results in chronic infection and progressive liver damage.

How common is it?

Hepatitis C seems to be endemic in most parts of the world. The total global prevalence is estimated to be about 1.6%, corresponding to 115 million previous viraemic infections, but there is considerable geographical and age variation in the incidence and prevalence of infection and of genotypes. The prevalence may be as high as 5-15% in some parts of the world, and different regions have a different risk profile and age demographic. The prevalence is higher in specific populations, such as people who are incarcerated or institutionalised.

What causes it?

Hepatitis C virus (HCV) is an infectious, hepatotropic virus belonging to the Flavivirus family, and is transmitted by percutaneous blood exposure. The most common worldwide cause is unsafe injection practices during medical treatment. Infection is also common in people who inject drugs. Less commonly, it is spread through sexual activity, perinatally, intranasal drug use, or after accidental blood contact (such as haemodialysis). Blood and blood products not screened for HCV have also been sources of infection. About 10% of people with HCV infection have no recognised risk factor.

Some patients, particularly younger women, will spontaneously clear the virus, but most people will develop chronic infection. Black people seem to be least likely to spontaneously clear HCV.
**How is hepatitis C diagnosed?**

Diagnostic tests for HCV are used to establish a clinical diagnosis, prevent infection through screening of donor blood, and make decisions regarding medical management of patients.

**Acute infection**

*HCV RNA testing* is needed to diagnose acute infection. Nucleic acid tests include reverse transcription followed by polymerase chain reaction (PCR), branched chain DNA analysis, and transcription mediated amplification (TMA). It is important to remember that 15-45% of people exposed may ultimately clear the virus without treatment. In these patients, the HCV antibody test will remain positive, but, because they are no longer viraemic, the nucleic acid test will become negative (see figure).

**Chronic infection**

*Antibody tests*

Following exposure to the virus, it can take several weeks to develop anti-HCV antibodies (fig 1). Also, patients may spontaneously clear the virus up to 12 weeks after an acute exposure (such as a contaminated needlestick injury). Therefore, a screening test such as an enzyme immunoassay (EIA) may be negative, and should be repeated in three months. Every patient with HCV infection should have a viral genotype before treatment in order to determine the most appropriate treatment regimen.

*Liver function tests*

Physical examination or laboratory values alone may not indicate disease until it is advanced. Serum aminotransferases, particularly alanine aminotransferase, can be used to measure disease activity (figure), although sensitivity and specificity are low.

*Liver biopsy*

Liver biopsy is not used to diagnose hepatitis C infection but is useful in staging fibrosis and the degree of hepatic inflammation. However, because direct acting antiviral therapy is now considered to be so effective, biopsy is rarely warranted.

*Other non-invasive tests*

Non-invasive tests for prediction of fibrosis are becoming the standard of care compared with liver biopsy. In Europe, non-invasive tests such as elastography have been more accepted as replacements for liver biopsy. However, elastography may not be adequate on its own to rule in or rule out significant fibrosis.

**How is hepatitis C managed?**

The goal of antiviral treatment is to clear the virus from the bloodstream. Treatment is also associated with stabilisation or even improvement in liver histology and clinical course. Other goals are symptom control and prevention of complications of progressive liver disease, including cirrhosis, decompensated liver disease, and hepatocellular carcinoma.

**Acute infection**

There is no specific treatment for acute exposure until viraemia is established. If both physician and patient decide that a delay in starting treatment is acceptable, the patient should be monitored for spontaneous clearance of the virus for a minimum of six months. If spontaneous clearance occurs, no antiviral treatment is necessary. Treatment during the first six months, if undertaken, should be the same as for chronic infection.

HCV RNA should be monitored for at least 12-16 weeks to allow for spontaneous clearance before treatment is started. If HCV RNA is not detected within 12-16 weeks after the acute exposure, the patient is unlikely to have been infected or has cleared the virus spontaneously.

**Chronic infection**

The American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America (IDSA) guidelines recommend treatment for all patients with chronic HCV infection except those with a short life expectancy (for example, because of comorbid conditions). Studies demonstrate that treating at an earlier stage of disease is associated with improved outcomes compared with waiting for more advanced disease to develop.

The recent rapid development of new antiviral agents has resulted in changes to treatment guidelines, and the mainstay of treatment is now with directly acting antiviral agents (DAAs). A specialist should be consulted before selecting the most appropriate treatment regimen. Specific regimens primarily depend on the HCV genotype and the presence or absence of cirrhosis. The box below shows current treatments for HCV infection.

A Cochrane review in 2017 of 138 randomised clinical trials (25 232 patients) comparing DAAs with no intervention or placebo, alone or with co-interventions, found that DAAs have mainly been studied short term with sustained virological response as a surrogate outcome. Few or no data are available yet about the effect of DAAs on hepatitis C related morbidity or mortality.

The introduction of DAAs into HCV treatment regimens means that there is an increased risk of drug interactions with other medications the patient may be taking (such as antiretrovirals, anticonvulsants, antifungals, corticosteroids, statins, antibiotics, and herbal medicines). There is also a small risk of reactivation of hepatitis B.

<table>
<thead>
<tr>
<th>Current treatments for hepatitis C infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug regimen components (which may be given with or without ribavirin) include:</td>
</tr>
<tr>
<td>- Daclatasvir plus sofosbuvir</td>
</tr>
<tr>
<td>- Elbasvir/grazoprevir combination</td>
</tr>
<tr>
<td>- Ledipasvir/sofosbuvir combination</td>
</tr>
<tr>
<td>- Ombitasvir/paritaprevir/ritonavir combination with or without dasabuvir</td>
</tr>
<tr>
<td>- Sofosbuvir plus simeprevir</td>
</tr>
<tr>
<td>- Sofosbuvir/velpatasvir combination</td>
</tr>
</tbody>
</table>

75
### Hepatitis C complications

#### High likelihood complications

<table>
<thead>
<tr>
<th>Rheumatological complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable timeframe</td>
</tr>
<tr>
<td>- Rheumatological manifestations include myalgia, fatigue, arthralgias, and arthritis</td>
</tr>
<tr>
<td>- Autoimmune manifestations include Sjögren’s syndrome</td>
</tr>
</tbody>
</table>

#### Medium likelihood complications

<table>
<thead>
<tr>
<th>Cirrhosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term timeframe</td>
</tr>
<tr>
<td>- Only 2-20% of those chronically infected develop cirrhosis, usually over a period of roughly 20-25 years.</td>
</tr>
<tr>
<td>- The risk of developing cirrhosis increases with the duration of chronic infection.</td>
</tr>
<tr>
<td>- Patients with HIV coinfection and those who drink moderately or heavily may progress to cirrhosis much more quickly</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable timeframe</td>
</tr>
<tr>
<td>- Associated skin lesions include porphyria cutanea tarda and lichen planus (below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cryoglobulinaemia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable timeframe</td>
</tr>
<tr>
<td>- The likelihood of asymptomatic cryoglobulinaemia is high, and that of symptomatic cryoglobulinaemia is low</td>
</tr>
<tr>
<td>- Cryoglobulins are single or mixed immunoglobulins that undergo reversible precipitation at low temperatures</td>
</tr>
<tr>
<td>- Cryoglobulins deposit in the skin, kidney, and joints. Patients may present with fatigue, arthralgias, peripheral neuropathy, palpable purpura (above), or glomerulonephritis.</td>
</tr>
<tr>
<td>- The most common variant in people with hepatitis C is type II (mixed) cryoglobulinaemia</td>
</tr>
</tbody>
</table>

#### Low likelihood complications

<table>
<thead>
<tr>
<th>Hepatoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term timeframe</td>
</tr>
<tr>
<td>- Hepatocellular carcinoma is typically seen only in HCV infected patients with cirrhosis, but it can occur in patients without cirrhosis.</td>
</tr>
<tr>
<td>- The incidence in Western nations has increased in the past two decades, mainly because of the large pool of people with hepatitis C.</td>
</tr>
<tr>
<td>- Manifestations include abdominal pain, lethargy, or weight loss. Hepatocellular carcinoma may also be asymptomatic and be discovered only on radiographic imaging</td>
</tr>
<tr>
<td>- It may be suspected in patients with cirrhosis if it is decompensated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glomerulonephritis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable timeframe</td>
</tr>
<tr>
<td>- The most common kidney disease related to hepatitis C is membranoproliferative glomerulonephritis (above), which may present with proteinuria, haematuria, and even oedema, hypertension, and renal insufficiency.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eye complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable timeframe</td>
</tr>
<tr>
<td>- Eye manifestations include keratoconjunctivitis sicca (dry eyes) (below), which may be a manifestation of Sjögren’s syndrome, and Mooren ulcer (a rapidly progressive, painful ulceration of the cornea).</td>
</tr>
<tr>
<td>- The diagnosis is made by exclusion of other causes of corneal ulceration</td>
</tr>
</tbody>
</table>
What is the prognosis for those treated for chronic infection?

Mortality is increasing, and the number of HCV related deaths now exceeds the number of HIV/AIDS related deaths in the US. The number of deaths from HCV was 19 659 in 2014 (5 deaths per 100 000 population), mainly in patients aged 55-64 years (25 deaths per 100 000 population or 50.9% of all HCV related deaths). The mortality rate was approximately 2.6 times greater for men compared with women.35

Sustained virological response (SVR) is defined as undetectable virus in the serum three months after treatment completion, which correlates well with long term absence of virus. A systematic review found high SVR rates for all FDA approved treatment regimens. SVR rates were >95% in patients with HCV genotype 1 infection for most drug combinations and patient populations. Overall rates of serious adverse effects and treatment discontinuation were found to be low (<10%) across all patients.36

Abstinence from alcohol, maintaining ideal body weight, avoiding hepatitis A or B (via vaccination), and avoiding HIV via safe sex are prudent.

Can hepatitis C be prevented?

Clean needles and needle exchange for intravenous drug users have been shown to decrease the risk of HCV transmission.37 Although sexual transmission of HCV is very inefficient, safe sex is a reasonable precaution in people with multiple partners and in people infected with HIV. Disposable medical and dental equipment should be used during medical and dental procedures. The risk of acquiring HCV from unsafe medical practices is very low in developed countries.

Should the general population be screened for hepatitis C?

Screening practices may be different between countries and, in particular, developed countries may have different practices from those of developing countries with limited medical facilities. Local guidance should be followed. For example, infants born in countries where there is a high risk of medical transmission should be tested.

In the US, there has been a recommendation of screening by birth cohort (such as screening all people born between 1945 and 1965), and this approach seems to be cost effective.38-42 The CDC recommends the one time screening of any person born between 1945 and 1965, and this approach seems to be cost effective.43 This recommendation may not apply to other countries, as specific approaches to screening will depend on the local epidemiology.

Competing interests: None declared.

Cite this as: BMJ 2017;358:j2861

Find the full version with references at http://dx.doi.org/10.1136/bmj.j2861

BMJ OPINION

Pass me an anti-boredom pill, please doctor

Evidence suggests that almost half our time is spent mind-wandering and that negative mind-wandering is associated with unhappiness. The possibilities for negative mind-wandering in hospital—where there are constant reminders of illness and uncertainty—are vast. Normally boredom provides the opportunity to make changes and escape rumination, but many struggle with doing nothing, and options for adults in hospital are limited. Could boredom be affecting hospitals’ outcomes and performance?

Studies from a decade ago suggest boredom is prevalent in hospitals for over half of patients, and yet this has not been addressed. It could be speculated that, since then, the internet has provided increased opportunities for engagement and interest. However, despite the internet, oncology patients at University College Hospital in London have told me about experiencing intense boredom, in some cases all the time. One patient suggested, “Boredom has probably been my biggest problem and enemy.” Surprisingly, patient boredom is missed entirely in NICE’s report on the patient experience. How could this be overlooked when there is focus on patients becoming more involved in their care as shared decision makers?

Ennui is associated with time passing slowly; a lack of meaning, challenge, and focus; and even higher mortality rates. Boredom is described as the “unengaged mind seeking engagement.” Imagine what difference relieving boredom could make? Could an engaged patient become more involved in their own care? Could boredom affect recovery, pain, fatigue, and relationships with staff? For children, we provide colourful surroundings, toys, activities, people, and encouragement, but little is available to keep adults’ minds occupied and their emotions balanced. Even simple ideas such as doodling and origami could help spark conversation, interest, and focus.

We need imaginative research into the impact of boredom. As one oncology patient told me, the chance to be creative is a “really welcome and joyful distraction from a rather serious business.” The time has come to make the most of precious time in hospital.

Lizzie Burns, creative specialist at the University College Hospital Macmillan Cancer Centre, is founder of the Anti-boredom Campaign
Supporting patients who are bereaved

M Katherine Shear,1 Stephanie Muldberg,2 Vyjeyanthi Periyakoil3

WHAT YOU NEED TO KNOW

• Acute grief is distinct from depression and other psychiatric disorders
• Symptoms of grief include prominent yearning and longing that is focused on the deceased person, and a strong desire to be around other people
• Bereaved patients should have the opportunity to talk about their loved one, their loss, and how they have been coping
• Answer patients’ questions or concerns about medical care that their loved one received, or about the last days of life
• Encourage patients to confront loss and reminders, and at the same time begin to create a new life

A doctor consults with a 69 year old patient and notes that she seems distant and sad. It is three months since her partner died. When the doctor asks how she is managing she says the house feels empty without him and she feels low. She no longer sees any reason to cook and struggles to clean. She longs for companionship but refuses invitations from her friends because being with them makes her miss her partner. Her grandchildren are a pleasure but they ask about grandpa, so she doesn’t want to see them. Tearfully, she talks of dreading her future.

Loss of a loved one can be very painful. When seeking support, some people turn to their doctor. Because of their pivotal role in the community, physicians can provide excellent support for bereaved people and can often direct them to additional resources.1 Doctors who see bereaved patients consulting for symptoms of grief or about another medical problem have the opportunity to make a positive difference in their experience of loss and grief. This article discusses ways to understand people’s response to grief and adaptation to loss of a loved one, and offers suggestions for strategies to provide support to bereaved patients. Most bereaved people will find a way to adapt to their loss over time, with support from people in their natural environment, and perhaps healthcare professionals. We highlight symptoms to watch for that might suggest more specialist help is needed.

Assessment of bereaved patients

Data from clinical trials as well as patient and clinician experience suggest the following topics might be important to assess.

Ask about the person who died,2 the specific circumstances surrounding the death, and how the patient has been coping since the death. Explore the range of feelings3 and challenges the bereaved person is experiencing and how the loss is affecting their daily activities, social interactions, and work related activities. Explore the effectiveness of their support system.

Recognise typical grief symptoms

Grief is a mix of signs and symptoms in response to loss, and each person’s experience is unique. How, when, where, and with whom these symptoms are experienced and expressed vary depending on the circumstances, context, and consequences of the loss. Culture, ethnicity, and spiritual affiliation can affect how grief manifests and the person’s strategies for coping. Symptoms can fluctuate over time, as a person adapts to a loss and grief becomes integrated into their life. Common symptoms of acute and integrated grief are shown in box 1.

Be aware of the general picture of grief, but try not to have preconceived expectations about the specific constellation of symptoms or their time course. When patients talk about their experiences after bereavement listen for three themes:

1. Accepting the reality of the death.
2. Envisioning a future with purpose and meaning and the possibility of happiness.
3. Reaffirming a meaningful sense of connection to the person who died.

Be alert to storylines that deviate into a place of excessive avoidance and/or frequent intense or protracted expressions of anger, self reproach, or despair.

The experience of acute grief is often intense and disruptive. Patients might worry about whether what they are experiencing is “normal.” They might be surprised at the uncontrollability and intensity of emotions and the difficulty paying attention to things as they normally do.

How patients were involved in the creation of this article

This paper is co-authored by a patient. She considers the following topics to be important for clinicians to know and they have been covered in the article as a consequence of her involvement:

• Common psychological and physical symptoms of acute grief
• How to talk to a bereaved patient about their loss
• How to evaluate the patient’s progress of adaptation to their loss

How this article was created

Preparation of this manuscript included a review of the authors’ personal and professional experiences and a wide range of papers in the literature.
Data from nine observational studies suggest that people can experience a sense of presence of the deceased person and even overt visual or auditory hallucinations of them. These are not necessarily a sign of a serious mental disorder as many bereaved people report these experiences.

Sometimes a bereaved patient can experience a profound sense of despair and express a wish to die. Establish whether the wish to die is accompanied by any active suicidal thinking.

Assess for the presence of stress related mental health problems. Observational data indicate that bereavement can trigger a psychiatric disorder. For example, death of a loved one is associated with increased risk of major depressive disorder that can be confused with acute grief. Box 2 gives tips on how to differentiate grief and depression. It is important to differentiate the two, as the management strategies are different. Acute grief needs understanding, support, and monitoring, but major depression might need additional treatment.

Bereavement can also trigger anxiety disorders, alcohol abuse, mania, and post-traumatic stress disorder. Patients might need referral to a mental health professional if there is substance misuse or self harm, suicidal thoughts, or other serious behavioural disturbance.

Assess for the possible onset or worsening of physical illness. Bereavement activates physical pain centres in the brain, and triggers a physiological stress reaction. Observational data have shown that bereaved people are at increased risk of physical disorders including cardiovascular illness and cancer. Bereavement can trigger or exacerbate existing sleep disturbance. Exercise and eating are also frequently disrupted, and bereaved people might forget to take prescribed medications.

Ask about the person’s sleep, eating, exercise, and social relationships.

How to offer support

It is possible even during a relatively short conversation to offer support. It might be helpful to explain grief to a patient in non-clinical terms. Observational data suggest the following additional strategies to guide the discussion.

Offer empathic listening

Offer a place where the patient can talk and feel that someone is listening. Bereaved people might want to talk about their deceased loved one with others, including with clinicians who care for them. Discussions with bereaved people should be warm, inviting, and open ended. It can be difficult to bear witness to the pain of loss without trying to fix the problem.

Manage symptoms

Offer management for any physical or psychiatric disorders identified. Encourage a healthy lifestyle and provide advice on sleep disturbance if relevant, but avoid giving medication where possible. Suggest monitoring symptoms with the patient for a period of time, and if considerable time passes with no attenuation of grief intensity, consider whether there are barriers to adaptation to their loss, such as

Box 1 | Typical acute grief symptoms

Acute grief is dominant and disruptive, characterised by

- Intense yearning, longing, sorrow, emotional pain, physical symptoms like heart palpitations, butterflies in the stomach, frequent yawning, dizziness/fogginess
- Feelings of disbelief, difficulty comprehending the reality of the death
- Insistent distracting thoughts of the deceased, trouble focusing attention, forgetfulness
- Loss of sense of self or sense of purpose and belonging, and feeling aimless, incompetent, without feelings of wellbeing
- Feeling disconnected from other people and ongoing life.

When grief has become integrated, symptoms emerge intermittently and are characterised by

- Comprehension of the reality and consequences of the death
- A mix of emotions with bittersweet positive emotions usually dominant
- Thoughts and memories of the deceased are accessible but not preoccupying
- Restoration of sense of self and sense of purpose and belonging; feelings of competence and wellbeing
- Interest and engagement in life and other people are re-established; happiness seems possible.

Box 2 | Distinguishing grief and depression

Unlike depression, grief includes prominent yearning and longing

The capacity to experience positive emotions is maintained in grief and compromised in depression

Symptoms are experienced most profoundly when the patient is focused on the deceased person, who is strongly missed

Grieving people tend to want to be with people, whereas depressed people tend not to. Sadness related to social loss draws us toward other people, while sadness related to feelings of personal failure does not.
An approach to assessment and management of bereaved patients

In this table we provide guidance based on observational studies of bereaved people, expert surveys, and patient and clinician observations. We remind clinicians that each individual has unique grief manifestations that are shaped by who died, how they died, as well as their cultural and religious context. Discerning clinical judgment is the “gold standard” unique grief manifestations that are shaped by who died, how they died, as well as their cultural and religious context. Discerning clinical judgment is the “gold standard.”

### Symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Normative grief in the first 6 months after death of a loved one</th>
<th>Normative grief after the first 6 months after death of a loved one</th>
<th>Complicated grief (at least 6 months after the death of a loved one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearning/longing sorrow</td>
<td>✓✓✓</td>
<td>✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Sadness</td>
<td>✓✓✓</td>
<td>✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Anxiety/anger/guilt</td>
<td>✓✓</td>
<td>✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Difficulty engaging with other people or activities of ongoing life</td>
<td>✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Heightened physiological and/or emotional reactivity to reminders of the loss</td>
<td>✓✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Intrusive thoughts or memories of the deceased</td>
<td>✓✓</td>
<td>✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Changes in sense of self</td>
<td>✓✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Rumination over troubling thoughts related to the death or the loss</td>
<td>✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Avoidance of reminders that the person is gone</td>
<td>✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>High levels of emotionality with difficulty regulating emotions</td>
<td>✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>✓✓✓</td>
<td>✓</td>
<td>✓✓✓</td>
</tr>
<tr>
<td>Physical pain and other distressing somatic symptoms</td>
<td>✓✓</td>
<td>–</td>
<td>✓✓✓</td>
</tr>
</tbody>
</table>

### Suggested management strategies

- Normalise grief symptoms and reassure the patient. Consider referral for group or individual grief support. If symptoms are severe or unusual refer to mental health services.
- Provide About Grief Handout (see supplement to this article).
- Schedule follow up at 6-8 months after loss or earlier as needed.
- Schedule follow-up as needed.

Can be present  ✓  Often present  ✗✓  Almost always present  ✓✓✓  Not present

- Excessive avoidance and/or frequent intense or protracted expressions of anger, self reproach, or despair.

### Help patients adapt to their loss

Help patients to accept the reality of the death, restore interest and enthusiasm for ongoing life, and reaffirm a sense of connection to the deceased. In this way, grief can eventually find a place in the patient’s life along with renewed interest and enthusiasm for ongoing life, and reaffirm a sense of connection to the deceased.

- Explain that it can be helpful to both confront the pain of the loss and also allow themselves to set it aside. For example, encourage people to gradually confront reminders of the loss such as belongings of the deceased, notifying colleagues of the deceased, attending social events as a single person, and making new friends.

### Identify those who are likely to struggle

Patients can benefit from referral to a grief counsellor when the circumstances or consequences of the death are especially difficult, such as suicide or child loss. Those whose natural support system is inadequate might benefit from peer or faith support, or grief counselling. If acute grief persists for periods longer than a year, and is associated with substantial impairment in functioning, a diagnosis of complicated grief might be warranted, with referral to specialist mental health services. There is evidence from randomised controlled trials and eight smaller studies from Australia and western Europe for efficacious treatment.

### Patients might worry about whether what they are experiencing is “normal”

#### EDUCATION INTO PRACTICE

- How do you typically frame consultations in which grief is addressed? Can you think of anything you might alter after reading this article?
- How comfortable do you feel discussing the circumstances of a patient’s relative’s death as a mechanism to help the patient better come to terms with it?
- What questions might you ask to distinguish between depression and acute grief in recently bereaved patients?
- How might you offer a lay explanation of what normal grief is?
- How have or would you deal with your own feelings of grief following the death of a patient whose care you have been involved with?

#### CONCERNS ABOUT MEDICALISATION OF GRIEF

Acute grief can be highly distressing and disabling, but grief should not be medicalised. Grief is the body’s natural response that evolves as a bereaved person adapts to their loss.

Complicated grief occurs when adaptation is impeded. It can be reliably diagnosed and effective short term treatment is available.

While there is no universal time frame for adaptation to loss, evidence for complicated grief has been found across cultures after a minimum six months.

Draft diagnostic proposals by the World Health Organization International Classification of Diseases, 11th edition (ICD-11), and the Diagnostic and Statistical Manual of Mental Disorders (DSM), 5th edition, have not yet been accepted and there is ongoing debate about specific criteria for prolonged or complicated grief.

Pending resolution of these debates, the ICD-11 proposal is a simple, validated way to identify clinically significant, treatable problems with adaptation to loss.

### Conflicts of interest

KS is on the management board of an association of death education and counseling. SM is an advisory board member for a centre for complicated grief.

Cite this as: BMJ 2017;358:j2854

Find the full version with references at http://dx.doi.org/10.1136/bmj.j2854

80

8 July 2017 | the bmj
CASE REVIEW
An older man with memory impairment and convulsions
A 62 year old man was admitted to hospital with a one month history of convulsions and confusion without fever. He had seizures, memory impairment, and changes in behaviour, sometimes becoming irritated and aggressive. He had no history of alcohol or drug misuse.

Neurological examination showed impairment to memory and cognition, orientation, calculation, and attention abilities. The patient’s Glasgow coma scale score was 13.

Blood tests including full blood count, glucose, serum electrolytes, ammonia, lactate, renal function, and liver function were normal. Tests for infectious and autoimmune conditions were requested.

Analysis of the patient’s cerebrospinal fluid showed normal cytology, with a slightly increased protein level. An electroencephalography exam showed low amplitude slow waves in the temporal lobes. Magnetic resonance imaging (MRI) of the brain showed abnormalities in the bilateral medial temporal lobes (fig A). Based on the imaging findings, blood tests were requested. The patient’s serum anti-thyroid peroxidase level was raised, and the gamma-aminobutyric acid receptor B (GABA\(_B\)R) antibody was positive, both in the serum and cerebrospinal fluid.

Tests for anti-encephaliticle antibodies, including antineuronal nuclear autoantibody type 1 (anti-Hu), antineuronal nuclear autoantibody type 1 (anti-Ri), and Purkinje cell cytoplasmic autoantibody type 1 (anti-Yo), were negative.

In addition, thorax computed tomography (CT) showed a nodule in the left lung with lymph node enlargement (fig B).

1. What are the differential diagnoses?
2. What is the most likely diagnosis for this patient?
3. What are the suggestions for managing patients with the most likely diagnosis?

Submitted by Xiu-he Zhao, Yi-ming Liu, Xue Yang, Shu-zen Wang, and Sheng-jun Wang

Patient consent obtained

Cite this as: BMJ 2017;358:j2824

SPOT DIAGNOSIS
A striking annular rash in a young man
A 34 year old man in Scotland described an expanding itchy rash on the right flank (above) over a period of three months, despite using topical steroids, oral antifungals, and oral antihistamines. *Borrelia* serology performed four weeks after the start of the rash had been negative. He did not recall a history of an insect bite or foreign travel, but visits the Scottish highlands regularly. What is the most likely diagnosis?

Submitted by Sze Ting Ivy Ngu and David Bilsland

Patient consent obtained

Cite this as: BMJ 2017;358:j2914

If you would like to write a Case Review for Endgames, please see our author guidelines at http://bit.ly/29HCBA1 and submit online at http://bit.ly/29yyGSx

You can record CPD points for reading any article. We suggest half an hour to read and reflect on each.

Articles with a "learning module" logo have a linked BMJ Learning module at http://learning.bmj.com.
**Retained contact lenses**

A 67 year old woman attended the day surgery for routine cataract surgery. She had no previous ocular complaints. During peribulbar anaesthesia a bluish foreign body emerged from the superior fornix as a hard mass of 17 contact lenses bound together by mucus (figure). The patient had worn monthly disposable lenses for 35 years. She had poor vision in the right eye and deep set eyes, which might have contributed to the unusually large number of retained foreign bodies. This case highlights the importance of appropriate candidate selection and monitoring of contact lens wearers. Double lid eversion and fluorescein staining of the ocular surface can reveal dislocated contact lenses in the upper fornix.

Rupal Morjaria (r.morjaria@nhs.net), Richard Crombie, Amit Patel, Heart of England NHS Trust, Solihull Hospital, Solihull, UK

Patient consent obtained.

Cite this as: BMJ 2017;357:j2783

---

**Firearms and US children**

Nearly 1300 children die and 5790 are treated for gunshot wounds each year in the US, according to an article that claims to provide the most comprehensive overview yet (Paediatrics doi: 10.1542/peds.2016-3486). This makes firearm related deaths the third leading cause of death overall among US children aged 1 to 17 years. There is also evidence that 4.2% of American children under 17 witness a shooting every year. But not even the best American presidents have seemed able to overcome the gun lobby.

---

**Early diuretics for acute heart failure**

Furosemide for acute heart failure is often cited as an example of a treatment universally adopted without a randomised trial, since no one would withhold it. Nonetheless, in real life practice, intravenous furosemide administration can be delayed beyond 60 minutes from emergency arrival in hospital. A Japanese study of 1291 patients presenting in emergency departments with acute heart failure shows that delay in loop diuretic emergency arrival in hospital. A Japanese study of 1291 patients presenting in emergency departments with acute heart failure shows that delay in loop diuretic administration is associated with increased in-hospital mortality, even though the administration is associated with increased heart failure shows that delay in loop diuretic administration is associated with increased in-hospital mortality, even though the administration is associated with increased heart failure.

---

**Overweight is better for stroke survival**

The Framingham Heart Study started enrolling participants nearly 70 years ago. Since then, more than 1000 of those suffered stroke, and an analysis of 782 with complete data shows that those with a body mass index of 25 to <32.5 experienced a long term survival benefit after ischaemic stroke compared with those with a BMI between 18.5 to <25 (J Am Heart Assoc doi:10.1161/JAHA.116.004721).

---

**Using up your heartbeats: twin study**

People with lower resting heart rates live longer on average. To try and disentangle the effect of heredity, researchers looked at the Danish Twin Registry to identify twins of median age 62 who had measurements of their radial pulse and were free of cardiovascular disease (Heart doi:10.1136/heartjnl-2016-310986). Of these, 31% died in the subsequent 16 years, and after adjustment for multiple risk factors, those with a resting heart rate of more than 90 beats per minute had a 50% higher risk than those with a resting heart rate of 61-70.

---

**Variation in Chinese hospitals**

The China PEACE Retrospective AMI Study tracks the outcomes of more than 12,000 patients with ST elevation myocardial infarction arriving at 162 Chinese hospitals in 2001, 2006, and 2011 (J Am Heart Assoc doi:10.1161/JAHA.116.005040).

Although adherence to guideline recommendations increased steadily, mortality actually worsened in 2006 before returning to previous levels (around 10%) in 2011.

---

**Go Wish: how you might face death**

Go Wish is a set of 36 cards with short statements of factors that might be important to people affected by life threatening illness. At the American University of Beirut, these cards were used in group teaching games to help students understand the different priorities that they or their patients might have if experiencing a potentially fatal condition (BMJ Support Palliat Care doi:10.1136/bmjspcare-2017-001342). Students participated enthusiastically and were invariably surprised at the difference between their own preferences and those of others within the group.

---

**Androgens in female athletes**

A study of 106 Swedish women who have competed in the Olympic Games shows that compared with population controls, they have higher levels of the precursor androgens dehydroepiandrosterone and 5-androstene-3β, 17β-diol and the metabolite etiocholanolone glucuronide and substantially lower levels of oestrone. The higher the level of these endogenous androgens, the better tended to be their performance. These games have always seemed a bit silly to us gods, who are the only true Olympians. (Br J Sports Med doi:10.1136/bjsports-2017-097582).

Cite this as: BMJ 2017;358:j3143

---

**MINERV A** is open for submissions of intriguing cases with an educational message that are of interest to a general medical audience. Submit pictures via our online editorial office (ScholarOne). Please provide no more than 100 words to explain the image, and send the patient’s signed consent to publication. We need written consent from every patient, parent or next of kin, whether or not the patient can be identified.

---

**JAHA.116.005040**