The Practitioner®

CPD study pack

May 2013;257 (1761)

The study pack contains this month's CPD exercise plus all the relevant articles:

- Diagnosis and management of autism in adults
- Managing disruptive behaviour disorders in children
- Intense nocturnal itching should raise suspicion of scabies

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Practitioner CPD exercise

When you have answered the questions below and overleaf, based on articles in this issue, tear out the page and put it in your personal development plan

AUTISM IN ADULTS

1 Which of the following interventions are recommended in managing autism?

A Group-based social learning programmes
B SSRI antidepressants
C Antipsychotics for challenging behaviour not otherwise responsive
D Lithium for acute mood disturbance

2 Complete the following statement:
An autism assessment in adults should be prompted by:

One or more of the following:
Persistent difficulties in social ..... or .....
or .....behaviours, resistance to change or restricted interests.

PLUS

One or more of the following:
Problems with ..... or ..... or ....
Contact with ..... or ..... services.
A.....condition.

3 Which of the following statements about autism are true?

A Most people with the condition have learning disabilities
True ❑ **False** ❑

B Many patients with autism, without a learning disability, are hypersensitive to light, sound or colour
True ❑ **False** ❑

C Brain imaging should routinely be performed
True ❑ **False** ❑

D Gastrointestinal conditions are common
True ❑ **False** ❑

4 List any changes to your clinical practice that you may make having read this article?

DISRUPTIVE BEHAVIOUR DISORDERS

5 Match the number to the statement

A Percentage of children affected by oppositional defiant disorder

B Age in months at which children are most physically aggressive

C How many times more likely adopted children with biological parents with a violent or criminal history are to display antisocial behaviour

D How many times more likely the most seriously affected children are to have drug problems, criminal behaviour or teenage pregnancy

1 3 or 4
2 5-10
3 22
4 5

6 A young single mother brings her five-year-old son to see you. He has been excluded from school for a serious assault on another child. The mother is on probation for violence against another young woman. She tells you that she is at her wits' end with the boy who is 'totally out of control' despite obvious strict punishments. She asks for medication to calm him down. As the discussion continues the child fidgets and plays for short periods with everything he can reach in your consulting room.

A What comorbid condition is likely?

B What should you do next?

C What other action should be considered?

7 Which of the following statements are true?

A Children with moderately severe conduct disorder should be referred for evidence-based group therapy
True ❑ **False** ❑

B CBT may be helpful in adolescents
True ❑ **False** ❑

C Watching and waiting is a reasonable strategy when home and school life are not unacceptably disrupted
True ❑ **False** ❑

»

CME

8 List any changes to your clinical practice that you may make having read this article?

SCABIES

9 Which of the following statements about scabies are true?

A Healthcare professionals are at particular risk
True ❑ False ❑

B The rash represents an acute hypersensitivity reaction
True ❑ False ❑

C Mites can survive away from the body for up to three days
True ❑ False ❑

D Crusted scabies is more infectious because it is caused by a more aggressive type of mite
True ❑ False ❑

E Symptoms may take up to six weeks to develop following infection
True ❑ False ❑

10 A 30-year-old teacher is concerned he has scabies. Several children in the class have been affected and he has developed an intense itch.

A Where might burrows be apparent?

B What is a typical feature of the itch?

C What test can be done in primary care?

11 You prescribe 5% permethrin cream to treat scabies in an adult.

A To which areas of the body should it be applied?

B How many applications should be used and at what frequency?

C What other measures should be taken?

12 List any changes to your clinical practice that you may make having read this article?

Answers

AUTISM IN ADULTS
1 A, C
2 Interaction; communication; stereotypic; employment; education; social relationships; mental health; learning disability; neurodevelopmental
3 **A** True **B** True **C** False **D** True

DISRUPTIVE BEHAVIOUR DISORDERS
5 **A**4 **B**3 C1 D2
6 **A** ADHD **B** Refer him to CAMHS **C** Referral to/discussion with social services
7 **A** False (parents referred) **B** True **C** True

SCABIES
9 **A** True **B** False **C** True **D** False **E** True
10 **A** The finger webs, sides of the fingers, palms, flexural aspects of the wrists, elbows and anterior axillary folds, insteps, and genital skin **B** Worse at night **C** The burrow ink test
11 **A** From the chin down **B** Two, one week apart **C** Treat all close contacts. Leave bed linen, towels and clothes in a plastic bag for a few days and then wash them

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Diagnosis and management of autism in adults

Valkanova V, Rhodes F, Allan CL. Diagnosis and management of autism in adults.
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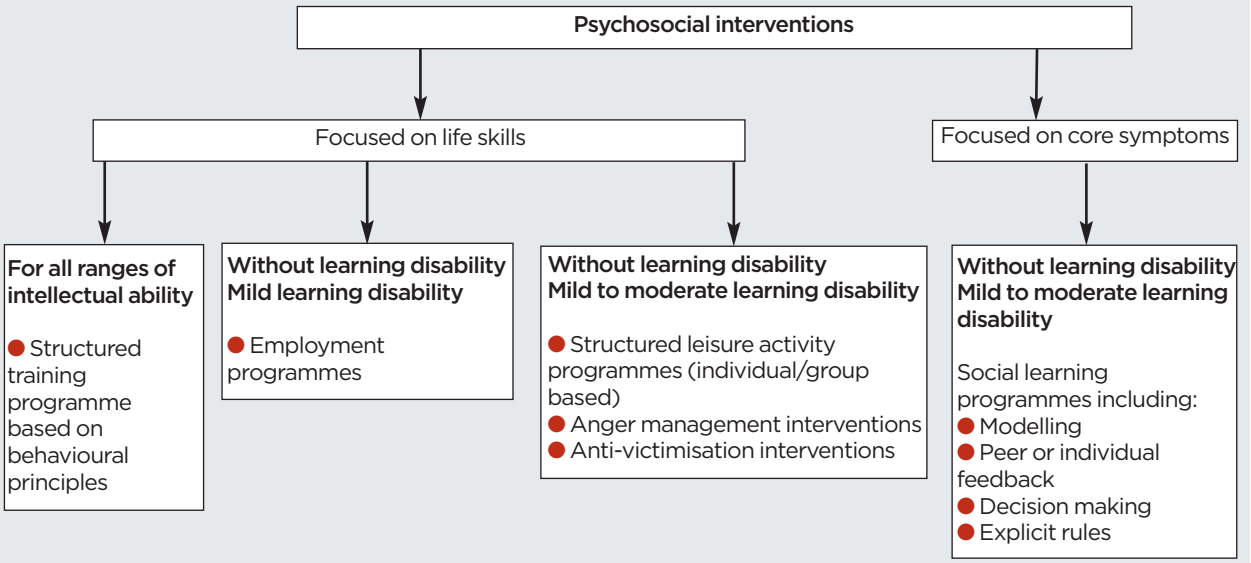
Diagnosis and management of autism in adults

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Adapted from NICE CG142. Autism in adults [2]

FIGURE 1
Psychosocial interventions for autism in adults

What are the symptoms and signs?

ADULTS WITH AUTISM CAN BE SIGNIFICANTLY DISADVANTAGED IN MANY ASPECTS OF LIFE including employment, social relationships, physical and mental health.[1] Recognition of the importance of identifying, assessing and managing adults with autism is increasing, particularly with the publication of recent NICE guidelines.[2] It is vital for adults of all ages, including older people,[3] to be accurately diagnosed in order to receive appropriate management.

Autism affects 1.1% of the adult population.[4] The spectrum of symptoms is wide. Some individuals have above average intelligence and are fully independent, while others have limited independence because of a learning disability.

Developmental delay is a core feature, and autism is usually diagnosed in childhood.[5] However, the diverse clinical spectrum makes early diagnosis difficult, especially if good language and cognitive skills help the child to develop coping strategies. Hence high-functioning individuals with autism, Asperger's syndrome, may remain undiagnosed until adulthood.[6]

How should diagnosis be confirmed?

SYMPTOMS AND SIGNS

GPs should suspect autism if patients present with the signs and symptoms listed in table 1, p14.

Diagnostic complexity is significantly increased when autism coexists with other mental disorders. Learning disability is the most common, and is present in up to 60% of people with autism,[7] however, depression, social anxiety, obsessive compulsive disorder and attention deficit hyperactivity disorder (ADHD) may also be found.

Depression and anxiety may occur due to the psychological and social consequences of autism, while common aetiological factors relating to neurodevelopmental disorders, may predispose to ADHD.

Autism is a lifelong condition characterised by difficulties in two core dimensions:
- Problems in social communication
- Strongly repetitive behaviour, resistance to change or restricted interests

People with autism show symptoms from both core dimensions and the difficulties in these two domains can be manifest in multiple ways, see table 2, p14.

ASSESSMENT

Careful consideration of core signs and symptoms is the first step in assessment see table 1, p14. It may be necessary to make adjustments to the physical environment, and to the duration and pacing of the assessment.[2]

A collateral history should identify »

What are the recommended interventions?

early developmental and behavioural problems in different settings i.e. at home, in education or employment.[2] Sensory and gastrointestinal problems are very common, and should be asked about. Up to 90% of adults with autism without a learning disability are hyper- or hyposensitive to sound, light, colour, smell or taste.[8] Almost half of adults with autism and a learning disability suffer from gastrointestinal disorders.[9]

Further investigations help to determine which patients should be referred to specialist services for a comprehensive assessment. The Autism-Spectrum Quotient (AQ-10) is a 10-item questionnaire for people with suspected autism.[10] The advantage of using this in primary care is that it provides a time-efficient, structured way of ascertaining key symptoms and clearly signals those who should be referred for further assessment. It is freely available online (http://guidance.nice.org.uk/CG142/AQ10Test/pdf/English).

Biological tests e.g. hearing, sight and electroencephalography, genetic tests and neuroimaging should not be used during the initial assessment, and are rarely needed as part of a comprehensive assessment.[2]

Table 1

Signs and symptoms that prompt assessment for autism in adults[2]

One or more of:	AND	One or more of:
● Persistent difficulties in social interaction ● Persistent difficulties in social communication ● Stereotypic behaviours, resistance to change or restricted interests		● Problems obtaining or sustaining employment or education ● Difficulties initiating or sustaining social relationships ● Contact with mental health or learning disability services ● Neurodevelopmental condition

Table 2

Core symptoms of autism

Social communication difficulties	Strongly repetitive behaviour/resistance to change or restricted interests
● Atypical eye contact ● Intrusion into others' personal space ● Difficulties with two-way interaction and interpreting non-verbal communication (including reduced empathy) ● Tendency to take language literally ● Social naivity and vulnerability to exploitation ● Reduced interest in socialising and difficulties interacting in social groups ● Loneliness and social anxiety (and risk of depression) ● Social anxiety	● Preference for repetition and routine ● Need for sameness (eating the same foods, wearing the same clothes) and anxiety at any change ● Preference for predictability and predictable events (watching washing machines spinning) ● Strict order and precision ● Need for clarity, strict order and precision ● Attention to small 'irrelevant' details ● Narrow deep interests, 'fixated' interests

Table 3

Behaviours indicating autism in adults with a moderate or severe learning disability

● Problems with social interaction including: being aloof, indifferent or unusual, interacting with others only when necessary, difficulty with two-way interaction
● Lack of responsiveness to other people
● Difficulty adapting behaviour to different social situations
● Limited expression of empathy
● Repetitive activities (spinning, hand flapping, rocking) which become more prominent at times of stress or are used as a way of expressing emotion

Adapted from NICE CG142. Autism in adults[2]

CONFIRMING DIAGNOSIS

Patients should be referred if autism is suspected clinically. The AQ-10 provides useful additional information to support referral; those who score above six should be referred.[10] The AQ-10 requires a patient to be able to read and write, and therefore is not appropriate for those with a moderate or severe learning disability. Where this is the case, referral should be based on a brief assessment only: if a patient has two or more behaviours suggestive of autism, see table 3, below, then referral is appropriate.[2]

'Patients should be referred if autism is suspected clinically'

A diagnosis of autism should be confirmed by a specialist multidisciplinary team.[2] The assessment should include a detailed developmental history and information about current and past behaviour, see table 4, opposite. This information will usually require a collateral history from someone who knows the patient well. Careful observation is needed to assess the core signs of autism, particularly patterns of social interaction.

The use of formal assessment tools which cover multiple domains including social interaction, communication, and imaginative use of materials, may aid the diagnosis, particularly in complex cases, see table 5, opposite.

However, all assessment tools have major limitations and should only be used in conjunction with a detailed clinical history.[11]

The results of the assessment should be communicated clearly to the patient, ideally with the support of a friend, family member or carer. If a diagnosis of autism is made, clinicians should do a risk assessment and formulate risk and crisis management plans. These should include details of the roles and responsibilities of both the specialist team and primary care team in managing crisis situations.

Table 4

Specialist assessment of autism

- Developmental history
- Social interactions, stereotypic behaviour, sensitivity to sensory stimulus, resistance to change, restricted interests
- Current and past behaviour problems
- Functional capability at home and work
- Past psychiatric history
- Past medical history (to include enquiry about neurodevelopmental conditions and epilepsy)

Adapted from NICE CG142. Autism in adults [2]

Table 5

Specialist assessment tools for diagnosing autism

- Adult Asperger Assessment (AAA)[15]
- Autism Diagnostic Interview* – Revised (ADI-R)[16]
- Autism Diagnostic Observation Schedule* – Generic (ADOS-G)[17]
- Asperger's syndrome (and high-functioning autism) Diagnostic Interview (ASDI)[18]

* suitable for people with a learning disability

The role of the GP in a crisis situation will vary depending on the needs of the individual, and may include, acting as the first point of contact (particularly out of hours), assisting the patient in contacting the specialist team, and, if appropriate, ensuring prompt prescription of medications.

If there is disagreement about the diagnosis, a GP could consider obtaining a second opinion. This may be useful, if a patient has complex physical or psychiatric comorbidities, or if local teams lack sufficient expertise in adults with autism.

MANAGEMENT

Psychosocial interventions

For adults with autism a group-based or individual social learning programme to improve social interaction is recommended.[2] This should include modelling, decision making, strategies for dealing with socially difficult situations and peer or individual feedback. Training in life skills is recommended for adults with all ranges of intellectual ability, who need help with activities of daily living. This consists of structured training programmes based on behavioural principles. For higher functioning individuals structured leisure activity programmes, and anger management may be beneficial, see figure 1, p13.

Adults with autism have high levels of unemployment,[12] and employment programmes have been successfully used to support people in obtaining or maintaining employment. Programmes typically include assistance with written applications, interviews, identification of appropriate roles and employer education and support. Prospects, run by the National Autistic Society, placed 68% of clients in work, the majority on permanent contracts, with high client and employer satisfaction and significant job retention at eight year follow-up.[13]

Table 6

Biomedical interventions that are not recommended for the core symptoms of autism

- Exclusion diets (gluten or caesin-free and ketogenic diets)
- Vitamins, minerals and dietary supplements
- Cholinesterase inhibitors
- Anticonvulsants
- Antipsychotics
- Antidepressants
- Hormonal therapies
- Hyperbaric oxygen therapy

Biological treatments

Further research into the use of antidepressants in managing the core symptoms of autism is needed, and their use is not currently recommended by NICE.[2]

There is promising trial evidence that fluoxetine significantly improves repetitive behaviours compared with placebo, and is well tolerated.[14] However, interpretation of this study and trials of other SSRIs are limited by small sample sizes and use of scales not validated in autism.

Biomedical interventions that are not recommended for the core symptoms of autism are listed in table 6, above.

CHALLENGING BEHAVIOUR

Before considering any psychosocial or pharmacological intervention for challenging behaviour, an assessment should be made of factors that may be triggering or maintaining the behaviour, including any physical symptoms, coexisting mental disorders and the physical or social environment.[2]

First-line treatment should focus on psychosocial interventions relevant to unmet needs, triggers and reinforcements of the challenging behaviour, and a complete evaluation of the behaviour, the individual and their environment.[2]

Intervention strategies should clearly identify target behaviour, desired outcomes, and a timescale for assessment of efficacy and modification. Any intervention should be focused on overall quality of the patient's life.

Second-line treatments may include medication such as antipsychotic drugs. These should be used in conjunction with a psychosocial intervention.[2] Antipsychotics should not be used first line, unless the patient's behaviour is so dangerous that it precludes the use of psychosocial or other interventions. Antipsychotics should be prescribed by a specialist and should be discontinued if there is no clinically important response by six weeks. Anticonvulsants should not be used routinely for challenging behaviour.

COEXISTING DISORDERS

NICE recommendations are available for coexisting mental disorders,[2] however, it may be helpful to seek advice from a specialist autism team to discuss how to adapt management.

When considering any pharmacological treatment, low doses should be used and attention should be given to the potential for greater sensitivity to any side effects and idiosyncratic responses.

'Families of adults with autism should be offered an assessment of their own needs'

PRIMARY CARE TEAM SUPPORT

An understanding of autism and the difficulties it poses is central to offering appropriate support to patients and their families.

A significant proportion of adults with autism experience social and economic exclusion, and are unable to access the support they need to live independently.[2] They are also at increased risk of other mental and physical disorders, and are less likely to report these.

People with autism, and if appropriate their carers, should have the opportunity to be involved in making informed decisions about their care, in partnership with healthcare professionals.[2] It is helpful to consider the impact of the »

key points

SELECTED BY

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Autism affects 1.1% of the adult population. The spectrum of symptoms is wide; some individuals have above average intelligence and are fully independent, while others have limited independence because of a learning disability. Developmental delay is a core feature, and autism is usually diagnosed in childhood. High-functioning individuals with autism, Asperger's syndrome, may remain undiagnosed until adulthood.

Autism is a life-long condition characterised by problems in two core dimensions: difficulties with social communication and strongly repetitive behaviour, resistance to change or restricted interests. The history should identify early developmental and behavioural problems in different settings e.g. at home, in education or employment. Sensory and GI problems are very common, and should be asked about. Up to 90% of adults with autism without a learning disability are hyper- or hyposensitive to sound, light, colour, smell or taste. Almost half of adults with autism and a learning disability suffer from GI disorders.

The Autism-Spectrum Quotient (AQ-10) is a 10-item questionnaire for people with suspected autism. The advantage of using this in primary care is that it provides a time-efficient, structured way of ascertaining key symptoms and clearly signals those who should be referred for further assessment. Biological tests should not be used during the initial assessment. Patients should be referred if autism is suspected clinically and a diagnosis of autism should be confirmed by a specialist multidisciplinary team. If a diagnosis of autism is made, clinicians should do a risk assessment and formulate risk and crisis management plans. These should include details of the roles and responsibilities of both the specialist team and primary care team in managing crisis situations.

For adults with autism a group-based or an individual learning programme to improve social interaction is recommended. Adults with autism have high rates of unemployment, and employment programmes have been successfully used to support people. There is promising trial evidence that fluoxetine significantly improves repetitive behaviours, and is well tolerated. Before considering any psychosocial or pharmacological intervention for challenging behaviour, an assessment should be made of factors that may be triggering or maintaining the behaviour, including any physical symptoms, coexisting mental disorders and the physical or social environment. First-line treatment should focus on psychosocial interventions relevant to unmet needs, triggers and reinforcements of the challenging behaviour, and a complete evaluation of the behaviour, the individual and their environment.

People with autism, and if appropriate, their carers, should have the opportunity to be involved in making informed decisions about their care, in partnership with healthcare professionals. It is helpful to consider the impact of the practice environment, including noise, proximity of others and time pressure. It is likely to take longer to establish a rapport; so it may help to use factual language, visual aids, written information and to avoid abstract terms.

Families of adults with autism provide much of the care and support, and are often crucial in the success of interventions. They should be offered an assessment of their own needs, including psychological, social and emotional support, respite care, emergency plans and planning of future care,[2] and signposting to relevant organisations.

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Useful information

NICE
For healthcare professionals
NICE CG142. Autism: recognition, referral, diagnosis and management of adults on the autism spectrum

For carers
NICE CG142. Diagnosing, supporting and caring for adults with autism
www.nice.org.uk

National Autistic Society
www.autism.org.uk

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Managing disruptive behaviour disorders in children

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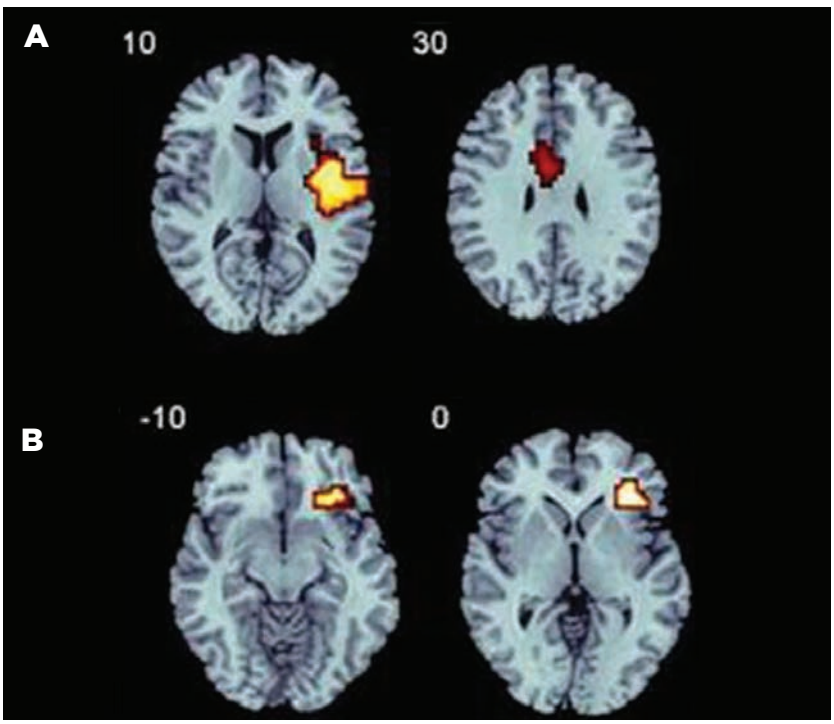
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Managing disruptive behaviour disorders in children

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Reduced activation in children with conduct disorder compared with ADHD and healthy children in areas of the paralimbic system.
A In insula, hippocampus and anterior cingulate during sustained attention.
B In ventromedial orbitofrontal cortex during reward

How should children be assessed?

Which children should be referred?

What are the management options?

AN EXHAUSTED MOTHER BRINGS HER SIX-YEAR-OLD CHILD TO THE SURGERY. SHE COMPLAINS THAT HE is constantly arguing with her and refuses her requests to get dressed, get ready for school, tidy his room, eat nicely, go to bed and so on. Not infrequently he has screaming tantrums. During the consultation you note that he is pulling out several of your patient information leaflets and dropping them on the floor. The mother's attempts to stop this are ineffective.

Is this just a stage the child is going through, or does it signal serious trouble ahead? This article provides some pointers on assessment and treatment in light of the NICE guideline on antisocial behaviour and conduct disorders, launched in March 2013.[1]

OPPOSITIONAL DEFIANT DISORDER

The age at which individuals are most physically aggressive is 22 months.[2] However, some children fail to inhibit this normal aggression and by the time they are three or four are showing signs of oppositional defiant disorder.[3] The criteria for diagnosis are set out in table 1, p20. In the Office for National Statistics survey published in 2005,[4] 5% of children met these criteria, so it is a common disorder.

CONDUCT DISORDER

In older children persistent antisocial behaviour is classified as conduct disorder. This includes more serious antisocial behaviours such as those listed in table 2, p20. Three of the features listed are needed to establish the diagnosis.

At any age, antisocial behaviour is on a continuum, and while the most severe 5% or so will meet diagnostic criteria, those falling short are often described as having conduct problems.

Will younger children grow out of their behaviour? The answer is that many will not, and epidemiological follow-up surveys repeatedly show that the risk of poor outcomes in antisocial children is very high. Taking the worst 5% aged seven, by the time they are in their mid-20s, they will have grossly elevated risk (between five- and ten-fold) of:

- Serious drug misuse
- Repeated offending
- Violence to partner
- Teenage pregnancy
- Leaving school with no qualifications
- Living on state benefits [5]

Looking back, 90% of recidivist young offenders showed persistent antisocial behaviour in early childhood.[6] The long-term financial costs are also high. Such children cost society ten times more than children without behavioural difficulties,[7] estimated at up to £1 million by their mid-30s.[8]

CAUSES

The causes are multiple, but two sets of factors stand out. First, genetic predisposition. Even children adopted away from violent or criminal parents have three or four times the rate of antisocial behaviour;[9] characterised by more irritable temperament, poorer attention span and lower IQ.[10]

Second, poor parenting, characterised »

Table 1

Criteria for oppositional defiant disorder

At least four of the following characteristics should be present for at least six months:
- Tantrums
- Arguing
- Swearing at parents and others
- Disobedience
- Deliberately winding others up
- Blaming others for his/her mistakes
- Touchy
- Angry
- Spiteful

Table 2

Criteria for conduct disorder

Three of the following are needed to make the diagnosis:
- Lying
- Stealing
- Aggressive fighting
- Staying out after dark
- Cruelty to people or animals
- Destruction of property
- Truancy
- Criminal acts
- Running away from home

by inconsistent, angry outbursts and a lack of warmth or involvement by the parent in social activities with the child.[11] Indeed by ignoring the child when behaving well, and giving attention through angry interchanges when behaving badly or by letting them have their own way, parents are inadvertently rewarding their children for being antisocial.[11] Such children are also more likely to be insecurely attached to their parents.[12]

ASSESSMENT

Watching and waiting is a reasonable strategy if the antisocial behaviour is not very severe, for example:
- Events only occurring two or three days a week
- Insignificant harm to others
- Short lived (two or three months)
- Confined to one context (at home or school)
- Not seriously impairing the child's life (makes friends, satisfactory at school)
- Not seriously disrupting harmony in the family
- The parent is reasonably positive towards the child and can set limits sensibly

Asking about recent changes in the child's life may reveal triggers, such as a mother returning to work, a sibling falling seriously ill, parents splitting up.

If the parent wants specific advice, a self-help book on parenting with proven techniques is effective for some,[13,14] as is advice from local voluntary sector parenting organisations.

Worrying signs

It is important to be vigilant for the following signs:
- Severe tantrums or aggression occurring almost every day, that lead to damage or hurt others and that have been going on for more than six months
- Harsh, rough, or inconsistent parenting by parents who have antisocial tendencies, mental health problems such as alcohol or drug misuse or depression, argue a lot, or where there is domestic violence
- The child may have coexistent attention deficit hyperactivity disorder (ADHD) characterised by a short attention span and distractibility, inability to sit still or constant fidgeting and restlessness, and inability to inhibit responses, e.g. frequently blurting words out of turn, unable to wait in line, etc.[3] A general or specific learning disability such as dyslexia may be present. Ask how the child is doing at school. Antisocial behaviour does not automatically mean the child will be near the bottom of the class, or even be on the autistic spectrum.

REFERRAL

If severity is moderate, referral to an evidence-based parenting group (such as the Incredible Years[13] or Triple P[14]) would be a good first move. However, if this fails to make things better, or if there are comorbid conditions in the child, such as ADHD, or the parent, such as depression or substance misuse, then referral to a child and adolescent mental health service (CAMHS) is indicated.

If abuse, domestic violence or neglect are suspected, then social services must be informed.[15]

TREATMENT

The first-line treatment is an evidence-based parenting programme delivered in a group format. This should not be just any parenting programme delivered locally, but one that has NICE approved components. It should be based on social learning theory, with a published manual, including the teaching of both positive parenting strategies and calm limits setting, reinforced by plentiful role play and practice. The programme should be delivered by practitioners who have attended training in the evidence-based programme and who receive supervision at least monthly from an expert.[1]

Discovering whether a parenting programme has these components is easy by consulting the Department for Education hosted website where all parenting programmes being offered in England are evaluated: www.education.gov.uk/commissioning-toolkit

The recent NICE guideline confirms that there is ample evidence from more than 60 randomised, controlled trials that such programmes are very effective, with an average effect size of 0.6 standard deviations.[1]

Such groups are becoming increasingly available, following the training of 4,000 practitioners by the National Academy for Parenting Practitioners from 2007 to 2010,[16] and now training of CAMHS staff by the new Children and Young Persons' Increasing Access to Psychological Therapies initiative (CY-IAPT).[17]

For older children, aged 10 to 17, there are effective interventions such as anger management CBT and parenting groups for adolescents.[1] At present these programmes are much less widely available.

At any age there is no convincing evidence that medication is a suitable treatment for antisocial behaviour. In exceptional circumstances, after everything else has been tried, under specialist supervision low doses of antipsychotics such as risperidone may be given for short periods. However, there are serious side-effects such as metabolic changes and marked weight gain.[1]

Where there is coexistent ADHD, stimulants often not only improve the ADHD symptoms but also improve the antisocial behaviour. This is not true in the absence of ADHD.[1]

NEW DEVELOPMENTS

There is increasing evidence that in addition to promoting antisocial behaviour, harsh and inconsistent parenting leads to epigenetic changes, cortisol dysregulation, raised inflammatory markers such as C-reactive protein through to adulthood, and brain changes.[18]

The latest edition of the American system for diagnosing psychiatric disorders, the Diagnostic and Statistical Manual fifth edition (DSM 5),[3] launched in May 2013, controversially includes a new diagnosis, disruptive mood

key points

SELECTED BY

Dr Peter Saul
GP, Wrexham and Associate GP Dean for North Wales

The age at which individuals are most physically aggressive is 22 months. However, some children fail to inhibit this normal aggression and by the time they are three or four are showing signs of oppositional defiant disorder.

In older children persistent antisocial behaviour is classified as conduct disorder. At any age, antisocial behaviour is on a continuum, and while the most severe 5% or so will meet diagnostic criteria, those falling short are often described as having conduct problems. Epidemiological follow-up surveys repeatedly show that the risk of poor outcomes in antisocial children is very high.

The causes are multiple but two sets of factors stand out. First, genetic predisposition. Even children adopted away from violent or criminal parents have three or four times the rate of antisocial behaviour and second, poor parenting.

Watching and waiting is a reasonable strategy if the antisocial behaviour is not very severe. If the parent wants specific advice, a self-help book on parenting with proven techniques is effective for some. It is important to be vigilant for severe tantrums or aggression occurring almost every day, harsh, rough, or inconsistent parenting and coexistent ADHD.

If severity is moderate, referral to an evidence-based parenting group would be a good first move. If this fails to make things better, or if the child or parent has a comorbid condition, referral to CAMHS is indicated. For older children, aged 10 to 17, there are effective interventions such as anger management CBT and parenting groups for adolescents.

Parents and teachers can find out whether or not a child is likely to be suffering from a significant antisocial behaviour problem by filling in the widely validated Strengths and Difficulties Questionnaire online at the Youth in Mind website: www. youthinmind.info

At any age there is no convincing evidence that medication is a suitable treatment for antisocial behaviour. In exceptional circumstances, after everything else has been tried, under specialist supervision low doses of antipsychotics such as risperidone may be given for short periods. However, there are serious side-effects such as metabolic changes and marked weight gain. Where there is coexistent ADHD, stimulants often not only improve the ADHD symptoms but also improve the antisocial behaviour. This is not true in the absence of ADHD.

dysregulation disorder. This refers to severe tantrums which many would see as part of common or garden conduct problems, but in the United States have sometimes been misdiagnosed as juvenile bipolar disorder and the children given heavy antipsychotic medication.

The CY-IAPT initiative[17] is training CAMHS staff in individual parenting programmes, where the parent is coached live in the presence of the child. This is particularly helpful in more severe cases and for parents who do not like groups; it can be delivered in the home.

The NICE guideline on antisocial behaviour and conduct disorders also recommends early prevention through social and emotional educational programmes, and reviews evidence showing the effectiveness of training teachers to use similar behavioural management techniques to reduce disruptive behaviour in the classroom.[1]

Parents and teachers can find out whether or not a child is likely to be suffering from a significant antisocial behaviour problem by filling in the widely validated Strengths and Difficulties Questionnaire online at the Youth in Mind website: www. youthinmind.info

The Government is experimenting with free vouchers for parenting programmes for all parents of under-fives in three areas of England, Camden in London, High Peak in Derbyshire, and Middlesbrough.[19] As part of this, the authors are developing an English online parenting programme which should become universally available in the autumn and provide a resource for parents whose children have mild behaviour problems, or who just want to hone their relationship skills.

Further reading

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Useful information

NICE
Different versions of the NICE guideline on antisocial behaviour and conduct disorders (CG158) including one for carers www.nice.org.uk

Textbook of Child and Adolescent Mental Health
Free and fairly comprehensive textbook, including chapters on oppositional defiant disorder and conduct disorder
http://iacapap.org/iacapap-textbook-of-child-and-adolescent-mental-health

National Parenting Strategy (Scotland)
www.scotland.gov.uk/Publications/2012/10/4789

Families First (Wales)
http://wales.gov.uk/topics/childrenyoungpeople/parenting/help/familiesfirst/?lang=en

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SPECIAL REPORT

Intense nocturnal itching should raise suspicion of scabies

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FIGURE 1
Non-specific maculopapular rash of scabies on the trunk

What causes scabies?

SCABIES (FROM THE LATIN *SCABERE*, TO SCRATCH) IS A COMMON, CONTAGIOUS, INTENSELY pruritic condition, rooted in antiquity, caused by infestation with a parasitic mite, *Sarcoptes scabiei* var *hominis*. This is a small, eight-legged organism, barely visible to the naked eye. The female mite tunnels within the stratum corneum of the epidermis, forming the burrows that typify the condition, laying eggs as she goes that hatch into larvae which develop into adults via a nymphal form.

The immunological consequences of scabies are still incompletely understood, although the itch and rash appear to be largely the result of a delayed (type IV) allergic reaction to the mite, its eggs and excreta.

How do patients present?

There is typically a lag of two to six weeks from the time of initial infestation until symptoms develop, but re-infection may result in rapid recurrence of symptoms.

In classical scabies, there are, on average, approximately a dozen female mites scattered over the body surface, but, occasionally, extremely large numbers of mites, often many thousands, infest the skin, causing relatively little pruritus. This highly contagious form is known as crusted, or Norwegian, scabies, and is particularly likely in elderly, immunocompromised, bedridden or institutionalised individuals, or in those with impaired perception of itch or an inability to scratch.

What are the evidence-based treatments?

SPREAD

Scabies is spread by a mite transferring to the skin surface of an unaffected person, usually by skin to skin contact with an infested person, but occasionally via contaminated bed linen, clothes or towels. However, it is quite often the case that the source of the infestation in a »

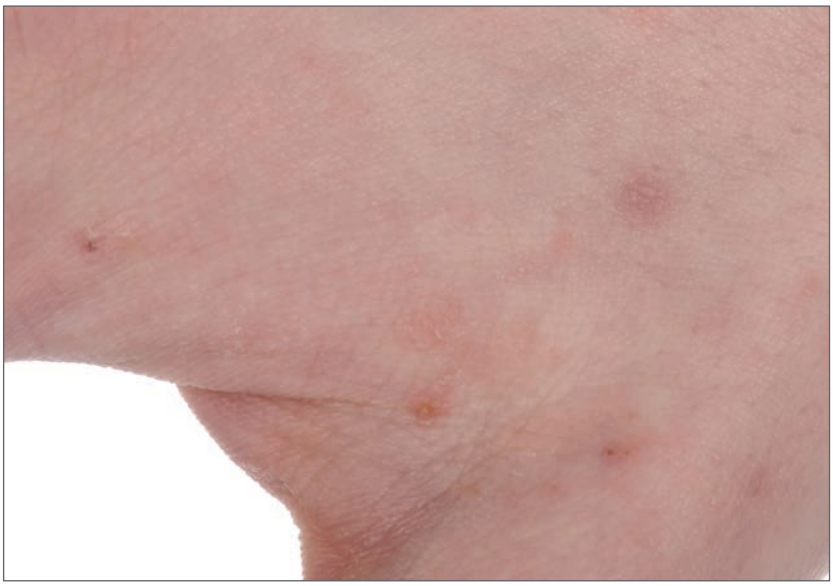


FIGURE 2
Burrows on the hand



FIGURE 3
Scalp involvement in a young child



FIGURE 4
Pustules and burrows on the sole in an infant

particular individual cannot be identified. A mite lodged beneath a fingernail as the result of scratching a burrow may be spread to a different part of the body or to another person.

In crusted scabies, mites are also dispersed within shed scales, enabling the condition to be contracted from contaminated surfaces. Normally, the scabies mite can survive away from the human host for only up to three days, but it is likely to be longer in the case of crusted scabies as the scale provides a source of food.

RISK FACTORS

The scabies mite is no respecter of age, gender, race or socioeconomic status. Undoubtedly, scabies remains a stigma-laden condition because of a misconception that it is always associated with sexual contact and poor personal hygiene, whereas in most cases it is acquired innocently by hygienic individuals.

'Scabies remains a stigma-laden condition because of a misconception that it is always associated with sexual contact and poor personal hygiene'

Crowded living conditions facilitate spread of the mite, and epidemics frequently occur in institutional settings such as prisons and residential or nursing homes. Healthcare professionals are also at particular risk through physical contact with patients.

PRESENTATION

Patients with classical scabies usually present with an itchy non-specific rash. Often, the history alone can be virtually diagnostic. An intense itch, affecting all body regions except the head, typically worse at night, appearing to be out of proportion to the physical evidence, with a close contact also itching, should prompt serious consideration of scabies.

The generalised hypersensitivity rash consists of erythematous macules and papules with excoriation, see figure 1, p23,

and close inspection (with gloved hands) will reveal serpiginous burrows, usually up to around 1 cm in length, see figure 2, opposite.

In adults, the characteristic sites for burrows are the:

- Finger webs
- Sides of the fingers
- Palms and flexural aspects of the wrists
- Elbows and anterior axillary folds
- Insteps
- Around the areolae in women
- Genital skin in men. Itchy inflamed scabetic nodules on the penile and scrotal skin are typical

In infants, scabies can involve the face and scalp resembling seborrhoeic dermatitis, see figure 3, opposite, and a pustular eruption on the palms and soles is common, see figure 4, opposite.

Scabies can be easy to miss when it is superimposed on other dermatoses, such as eczema and psoriasis, and it is the unusual intensity of the itch, particularly at night, that provides the clue (see case 1, right).

In contrast, the crusted variant of scabies may not be itchy, and is characterised by areas of dry, scaly, hyperkeratotic and crusted skin, particularly on the extremities, see figure 5, below, containing so many burrows that it is easy to overlook them (see case 2, right). Thickened nails may be a feature.

Scabies may occasionally present in

Case 1

A 17-year-old boy was referred by his GP for advice on the management of his psoriasis, which had been a particular problem for four months.

The patient mentioned in passing that he was very itchy, and further questioning established that the itch was worse at night and spared his head.

Examination confirmed typical localised plaque psoriasis, and revealed a maculopapular eruption on his trunk (see figure 1, p23), burrows on his hands (see figure 2, opposite and figure 7, p26) and a scabetic nodule on his penile shaft.

Treatment with topical permethrin was recommended, in addition to standard topical therapy of his psoriasis.

Case 2

A five-year-old, otherwise healthy, girl was referred by her GP regarding an itchy rash, treated as eczema with topical corticosteroids of escalating strength, including two potent preparations, which had commenced five months previously.

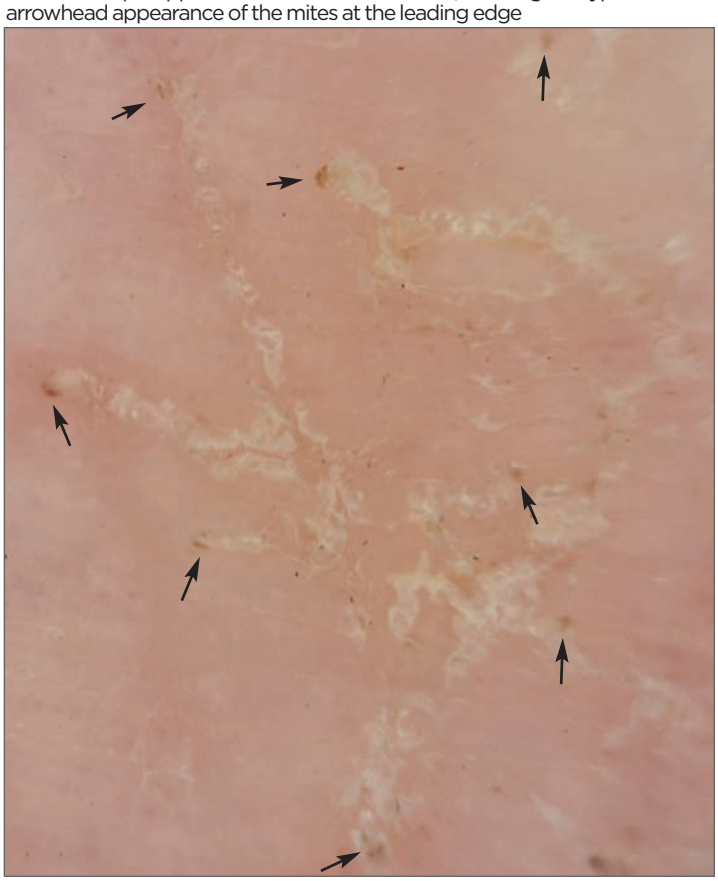
She had extensive inflammation on her trunk and limbs, crusted areas on her hands (see figure 5, below) and feet, and some scaling of her scalp (see figure 3, opposite). There were extremely large numbers of burrows on her hands and feet, and individual mites were easily visible with the dermatoscope (see figure 6, below).

Direct questioning and examination confirmed that her mother also had the classical form of scabies, with several visible burrows, from one of which the scabies mite was extracted. She and her family were treated with topical permethrin.

FIGURE 5
Crusted scabies affecting the hands



FIGURE 6
Dermatoscopic appearance of scabetic burrows, showing the typical dark arrowhead appearance of the mites at the leading edge



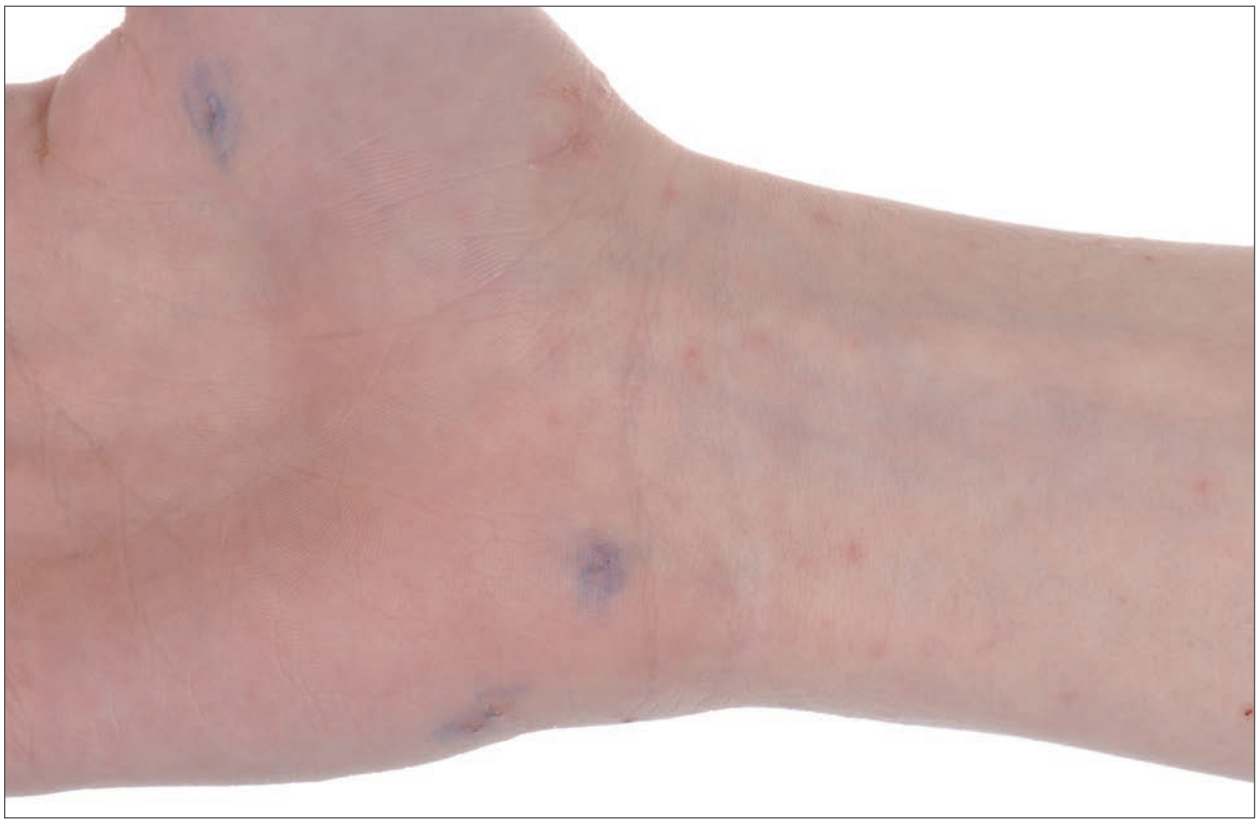


FIGURE 7
Several burrows highlighted using the burrow ink test

unusual forms such as:

- Blistering eruption resembling pemphigoid
- Purpuric rash mimicking vasculitis
- Erythematous cutaneous nodules in small children[1]
- Unexplained eosinophilia

The normal clinical features of scabies may be masked by topical or systemic corticosteroid therapy, and result in very large numbers of mites. This is referred to as scabies incognito.

CONFIRMING DIAGNOSIS

The pathognomic sign of scabies is the presence of burrows. In secondary care, extraction of mite, eggs or faecal material, by means of scrapings, curettage or with a cutting needle, is confirmatory.

Nothing ensures 100% compliance with treatment more than the patient seeing a mite under the microscope. Dermatoscopic examination is also a quick and easy way of confirming the diagnosis, see figure 6, p25.

In primary care, the burrow ink test can be used to confirm the presence of burrows if there is doubt.[2] This involves applying ink to the suspected burrow with the back of a fountain pen nib, and wiping off the excess with a cotton ball moistened with water or an alcohol swab. A burrow will absorb the ink and show up as a dark line, see figure 7, above.

MANAGEMENT

Typical scabies is a readily curable condition with topical measures, but certain basic principles must be adhered to:

- To reduce the risk of re-infection, all close contacts, including family members, require simultaneous treatment, even if asymptomatic, as asymptomatic infestation appears to be not uncommon.
- Two overnight (8-12 hours) applications of 5% permethrin cream, or 24 hour applications of 0.5% malathion lotion, should be given one week apart, to all areas of the skin (which should be cool and dry) from the chin down to the feet. Particular attention should be paid to the sites of burrows and beneath the free edge of nails.

Properly applied, the first treatment will usually destroy all the adult and developing mites, but not necessarily the eggs. The second treatment one week later will destroy any larval and nymphal forms that have hatched in the interim.

Patients with classical scabies may return to school or work 24 hours after the first treatment.

- In small children, the mite may also infest the scalp and face, which should be treated too.
- The treatment should be reapplied to the hands or nappy area if they are washed. Young children should wear mittens to prevent the acaricide being licked off.
- Clothing, towels and bedding should be left for a few days, in a plastic bag, and then put through a standard wash cycle. For classical scabies, general cleaning of accommodation is not necessary, but thorough cleansing of rooms used by patients with crusted scabies is advisable.

'Nothing ensures 100% compliance with treatment more than the patient seeing a mite under the microscope'

- It can take a number of weeks (longer for nodular lesions) for symptoms to subside after adequate treatment. It is important to explain this to patients. The itch and rash can be ameliorated by topical corticosteroids, crotamiton (itself a mild acaricide), calamine, menthol

key points

SELECTED BY
Dr Peter Saul
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Scabies is caused by infestation with a parasitic mite *Sarcoptes scabiei* var *hominis.* This is a small, eight-legged organism, barely visible to the naked eye. The female tunnels within the stratum corneum of the epidermis, forming the burrows that typify the condition, laying eggs that hatch into larvae which develop into adults. The itch and rash appear to be largely the result of a delayed (type IV) allergic reaction to the mite, its eggs and excreta.

In classical scabies, there are, on average, around a dozen female mites scattered over the body surface, but, occasionally, extremely large numbers of mites infest the skin, causing relatively little pruritus. This highly contagious form is known as crusted, or Norwegian, scabies and is particularly likely in elderly, immunocompromised, bedridden or institutionalised individuals.

Scabies is spread by a mite transferring to the skin surface of an unaffected person, usually by skin to skin contact with an infested person, but occasionally via contaminated bed linen, clothes or towels. In crusted scabies, mites are also dispersed within shed scales, enabling the condition to be contracted from contaminated surfaces.

Patients with classical scabies usually present with an itchy non-specific rash. Often, the history alone can be virtually diagnostic. An intense itch, affecting all body regions except the head, typically worse at night, appearing to be out of proportion to the physical evidence, with a close contact also itching, should prompt serious consideration of scabies. The generalised hypersensitivity rash consists of erythematous macules and papules with excoriation. Close inspection will reveal burrows usually up to 1 cm in length. The crusted variant of scabies may not be itchy. It is characterised by areas of dry, scaly, hyperkeratotic and crusted skin, particularly on the extremities. The pathognomic sign of scabies is the presence of burrows.

In order to reduce the risk of re-infection, all close contacts, including family members, require simultaneous treatment, even if asymptomatic. Two overnight, 8-12 hours, applications of 5% permethrin cream, or 24 hour applications of 0.5% malathion lotion, should be given one week apart, to all areas of the skin from the chin down to the feet. Particular attention should be paid to the sites of burrows and beneath the free edge of nails. Crusted scabies can be more difficult to treat. Gentle attempts should be made to soak off the crusts, and the topical acaricide should be applied two or three times on consecutive days.

Referral to secondary care should be considered in the following cases: diagnostic doubt; patient under two months of age; lack of response to two courses of different insecticides; crusted scabies; history suggests a risk of sexually transmitted infection. Outbreaks of scabies in institutions should be referred to the local health protection services.

cream and a nocturnal dose of sedating antihistamine.

- It is prudent to provide the patient or carers with detailed written or verbal instructions.[3]
- Persistent symptoms usually imply inadequate treatment, re-infestation or, rarely, drug resistance.

Permethrin 5% cream (an ectoparasitic neurotoxin) is the first-line treatment for scabies, although its use should be avoided in individuals with chrysanthemum allergy. Malathion 0.5% lotion is also an effective acaricide.

Benzyl benzoate 25% emulsion is an irritant and is not recommended for children. If used for adults, it should be left on for 24 hours and applied on two or three consecutive days, without bathing.

Traditional treatments such as gamma benzene hexachloride (which can be neurotoxic) and sulphur ointment are now rarely used in the UK and are not recommended.

Crusted scabies can be more difficult to treat. Gentle attempts should be made to soak off the crusts, and the topical acaricide should be applied two or three times on consecutive days.

Oral ivermectin can be considered if there is difficulty in eradicating crusted scabies. It is available on a named patient basis, and usually instigated on specialist advice.

REFERRAL

Referral to secondary care should be considered in the following cases:

- Diagnostic doubt
- Patient under two months of age
- Lack of response to two courses of different insecticides
- Crusted scabies
- History suggests a risk of sexually transmitted infection

Outbreaks of scabies in institutions should be referred to the local health protection services.

POTENTIAL COMPLICATIONS

Serious complications in typical scabies are rare. Scratch-induced secondary bacterial infection with Staphylococcus and Streptococcus species can cause impetigo, boils and cellulitis, and infection may be particularly dangerous in crusted scabies. Exacerbation of pre-existing skin conditions, particularly eczema and psoriasis, may occur. Misdiagnosis can result in unnecessary investigation for more sinister conditions such as vasculitis, blistering disorders or histiocytosis.[1]

Even after successful treatment, persistent itchy nodules, particularly on adult male genital skin, nodular scabies, may persist for a number of months.

CONCLUSION

Scabies is common and debilitating, and a potentially challenging disorder in primary care, as delay in its diagnosis and treatment causes not only difficulties for individual patients but also enables spread of the condition.

The key to making the diagnosis is always to consider the possibility in any patient complaining of itch, and deliberately and patiently look for the telltale burrows.

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Useful information

For healthcare professionals
Clinical knowledge summaries: scabies
http://cks.nice.org.uk/scabies

DermnetNZ
http://dermnetnz.org/arthropods/scabies.html

Medscape
http://emedicine.medscape.com/article/1109204-overview

For patients
The British Association of Dermatologists
Scabies. Information leaflet for patients
http://www.bad.org.uk/site/871/Default.aspx

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