Autism occurs in approximately 1% of children and young people, though the diagnosis is made less commonly in girls and anyone with severe intellectual disability. It is one of the most important causes of lifelong disability, with support and lost productivity costs estimated at more than £28bn (€32bn, $43bn) annually in the UK. Individual presentations vary widely, as do associated functional impairments, but the core features of autism are persistent impairment in reciprocal social interaction and social communication and restricted, repetitive patterns of behaviour, interests, or activities. These features occur whether or not the individual has an intellectual disability and are typically present in early childhood, though they may be masked by parental support or compensations. Intellectual disability, language impairment, academic deficits, and movement disorders are common, and mental and behavioural disorders are found in up to 70%. The presence of all these factors, as well as sensory sensitivities, constipation, sleep and eating problems, and behaviour that challenges, add considerably to the impact on the child or young person, their family, and professionals in health and social care and education.

This article summarises the most recent joint recommendations from the National Institute for Health and Care Excellence (NICE) and the Social Care Institute for Excellence (SCIE) on managing autism in children and young people.

**Recommendations**

NICE recommendations are based on systematic reviews of the best available evidence and explicit consideration of cost effectiveness. When minimal evidence is available, recommendations are based on the Guideline Development Group’s experience and opinion of what constitutes good practice. Evidence levels for the recommendations are in the full version of this article on bmj.com.

**Access to health and social care services**

- Ensure that all children and young people with autism have full access to health and social care services, including mental health services, regardless of their intellectual ability or any coexisting diagnosis.

**Organisation and delivery of services**

- The assessment, management, and coordination of care for children and young people with autism should be provided through local, specialist, community based, multidisciplinary teams—which should include professionals from health, mental health, learning disability, education, and social care services in line with NICE clinical guidance on autism in children and young people (CG128) and on autism in adults (CG142).

**Knowledge and competence of health and social care professionals**

Health and social care professionals working with children and young people with autism in any setting should receive training in autism awareness and skills in managing autism, including:

- The nature and course of autism
- The nature and course of behaviour that challenges in children and young people with autism
- Recognition of common coexisting conditions, including:
  - Mental health problems such as anxiety and depression
  - Physical health problems such as epilepsy
  - Sleep problems
  - Other neurodevelopmental conditions such as attention-deficit/hyperactivity disorder (ADHD)
- The individual’s experience of autism and its impact on him or her
- The impact of autism on the family (including siblings) or carers
- The impact of the social and physical environment on the individual
- How to assess risk (including self harm, harm to others, self neglect, breakdown of family or residential support, exploitation or abuse by others) and develop a risk management plan
- The changing needs that arise with puberty (including the individual’s understanding of intimate relationships and related problems that may occur, such as misunderstanding the behaviour of others)
- The importance of key transition points, such as changing schools or health or social care services
- How to provide individualised care and support and the need for consistency of approach across home, school, and other settings
- Skills for communicating with a child or young person.

**Making adjustments to the social and physical environment and processes of care**

- Take into account the physical environment in which the individual is supported and cared for and minimise any negative impact by making reasonable adjustments or adaptations to the setting, including:
  - Visual supports (such as words, pictures, or symbols at a level that is meaningful for the person)
  - Sensory challenges such as colour of walls and furnishings, lighting, or noise levels
  - Amount of personal space given.
Interventions for the core features of autism
- For the core features of autism, consider a specific social communication intervention that includes play-based strategies with parents, carers, and teachers to increase joint attention, engagement, and reciprocal communication in the child or young person. Strategies should
  - Be adjusted to the individual’s developmental level
  - Aim to increase the parents’, carers’, teachers’, or peers’ understanding of and sensitivity and responsiveness to the individual’s patterns of communication and interaction
  - Include techniques of therapist modelling and video interaction feedback
  - Include techniques to expand the individual’s communication, interactive play, and social routines.

The intervention should be delivered by a trained professional. For preschool children, consider parent, carer, or teacher mediation. For school aged children, consider peer mediation.
- Do not use antipsychotics, antidepressants, anticonvulsants, and exclusion diets (such as gluten-free or casein-free diets) to manage the core features of autism because the balance of risks (especially with anticonvulsants and exclusion diets) and benefits did not favour their use.

Interventions for autism that should not be used in any context
- Do not use secretin, chelation, or hyperbaric oxygen therapy to manage autism in any context because there is no clear evidence that these are effective and because there is harm associated with their use.

Interventions for behaviour that challenges
- In routine assessment and care planning, assess factors that may increase the risk of behaviour that challenges, including
  - Impairments in communication that may result in difficulty understanding situations or expressing needs and wishes
  - Coexisting physical disorders (such as pain or gastrointestinal disorders), mental health problems (such as anxiety or depression), and other neurodevelopmental conditions (such as ADHD)
  - The physical environment, such as lighting and noise levels
  - The social environment, including home, school, and leisure activities
  - Changes to routines or personal circumstances
  - Developmental change, including puberty
  - Exploitation or abuse by others
  - Inadvertent reinforcement of behaviour that challenges
  - The absence of predictability and structure.
- If no coexisting mental health or behavioural problem, physical disorder, or environmental problem has been identified as triggering or maintaining the behaviour that challenges, offer a psychosocial intervention (informed by a functional assessment of behaviour) as a first line treatment.

Interventions for the core features of autism
- Consider antipsychotic medication for managing behaviour that challenges when psychosocial or other interventions are insufficient or could not be delivered because of the severity of the behaviour. Antipsychotic medication should be initially prescribed and monitored by a paediatrician or psychiatrist, who should
  - Identify the target behaviour
  - Decide on an appropriate measure to monitor effectiveness, including frequency and severity of the behaviour and a measure of global impact
  - Review the effectiveness and any side effects of the medication after three to four weeks
  - Stop treatment if there is no indication of a clinically important response at six weeks.

Interventions for sleep problems
- If the individual has a sleep problem offer an assessment that identifies
  - What the sleep problem is (for example, delay in falling asleep, frequent waking, unusual behaviours, breathing problems, or sleepiness during the day)
  - Day and night sleep patterns, and any change to those patterns
  - Whether bedtime is regular and what the sleep environment is like
  - Presence of comorbidities, especially those that feature hyperactivity or other behavioural problems
  - Levels of activity and exercise during the day
  - Possible physical illness or discomfort
  - Effects of any medication
  - Individual factors such as emotional relationships or problems at school
  - The impact on parents, other family members, or carers.

Families and carers
- Offer families (including siblings) and carers an assessment of their own needs, including whether they have
  - Personal, social, and emotional support
  - Practical support in their caring role, including short breaks and emergency plans
  - A plan for future care for the child or young person, including transition to adult services.

Transition to adult services
- For young people aged 16 or older whose needs are complex or severe, use the care programme approach in England (care and treatment plans in Wales) to coordinate their needs and as an aid to transfer between services.
  - Involve the young people in the planning and, where appropriate, their parents or carers
  - Provide information about adult services to the young people, and their parents or carers, including their right to a social care assessment at age 18.

Overcoming barriers
Currently, widespread inconsistency in access to and provision of care and effective interventions (for autism and for
physical and mental health problems) are potential challenges to guideline implementation. However, establishing local autism strategy groups and multidisciplinary autism teams should help to resolve this problem and improve access to care. Moreover, in differentiating interventions for the core features of autism, associated problems, and coexisting physical and mental health problems, the guideline will help people access effective treatments and prevent them from being offered ones that are ineffective or harmful. Provision of social care is also variable and sometimes inadequate; to help overcome this challenge, the guideline advises integrating health and social care within the multidisciplinary autism team and recommending social support for the child and his or her parents.

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Having completed attachments in acute medicine and cardiology, I have seen quite a few patients presenting with chest pain. In the vast majority of cases, the diagnosis is acute coronary syndrome, but I have also seen patients with diagnoses of pericarditis, aortic stenosis, aortic dissection, and pulmonary embolism to name but a few examples.

However, I have also seen many patients who present with chest pain that has the appearance of an acute cardiac condition, but whose benign electrocardiograms and negative cardiac enzyme tests result in them being discharged with the diagnosis of “troponin-negative chest pain” on their discharge summary. This is a phrase that needs challenging.

Why use such a phrase in the first place? Well, it acknowledges that an episode of chest pain did occur but that the pain was non-cardiac in origin, which is reassuring ... especially to a cardiologist. But why should a diagnosis be in the negative? I mean, elephants are not described as “not a tiger.” We jump eagerly, and rightly, to focus on the heart and lung in a patient with chest pain given the suspicion of acute, life threatening pathology. But it seems that when these have been ruled out, we are equally eager to reassure patients that “it is nothing serious” and quickly discharge them. What answer then do you give to the question, “But what caused the pain doctor?” I have never been able to provide one to questioning patients.

The practice of hospital medicine is centred on ruling out diagnostic uncertainty. How can we be content with a phrase so clearly steeped in it? I suspect because it is a mask for “chest pain of unknown cause.” Should we not readily seek an answer? A detailed history and examination can help identify other causes of chest pain such as gastrointestinal and musculoskeletal causes. Could there be a psychiatric component?

The phrase “troponin-negative chest pain” is helpful in the diagnostic work-up of a patient but is not itself a medical diagnosis. To me, the phrase seems to be used as an accessible evasion for identifying the underlying cause. Perhaps an explanation may not be elucidated, but resting our clinical judgment on such a phrase should be avoided.

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“Troponin-negative chest pain”—a diagnostic evasion?