
SHORT REPORT

A scabies outbreak in a further education college in Gloucestershire

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SUMMARY

Scabies outbreaks in England have been reported in hospitals, long-stay wards, acquired immune deficiency syndrome (AIDS) units and residential homes for the elderly. This paper describes the control of an outbreak in a further education college for persons with learning disabilities. In March 2004, four confirmed cases of scabies were reported among a subset of 108 students and 41 staff members. Staff had considerable physical contact with the students who were housed in five groups of homes, individual homes and support centres. Mass prophylaxis was offered to all staff and students, through 39 general practice surgeries. Challenges overcome were: ensuring complete case ascertainment, accessing of up-to-date information about students and staff, achieving a coordinated approach to treatment, securing informed consent and media management. No further outbreaks have been reported. The college has revised its information request form for new students.

The scabies mite *Sarcoptes scabiei* var. *hominis* was discovered as the causal agent of 'the itch' in the 17th century [1]. Scabies affects all ages and races regardless of personal hygiene, although this can play a role in prevention. An estimated 300 million cases occur yearly worldwide, but the prevalence in England is unknown, with general practice consultations probably underestimating the true incidence. Reports, however, suggest that numbers have been increasing since 1991, the reasons for which are unclear. Epidemics can occur in areas of poverty, overcrowding and poor water-supply, but it has equally affected the famous and wealthy in its 2500-year recorded history of infecting humans [2]. Outbreaks in England have been reported in hospitals, long-stay

wards, AIDS units and residential homes for the elderly [3].

A high level of diagnostic suspicion is needed in an outbreak, as scabies is usually diagnosed by its typical appearance of a rash and itching, coupled with a clustering of cases. The rash, which is usually symmetrical, is as a result of an allergic reaction to mite saliva and faeces and may appear anywhere on the body. The associated itching can be intense, usually disturbing sleep. Scratching can lead to redness and secondary infection. Burrows are the only lesions that are directly caused by the mite. Crusted or Norwegian scabies is an atypical form in those with impaired immunity, with thickened scaly skin due to the large numbers of mites present. Laboratory confirmation of the diagnosis is by examination of skin scrapings under the microscope for mites, their eggs or faeces.

Adult mites are passed from person to person by prolonged skin-to-skin contact, and scabies remains

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infectious until treated. Atypical scabies is particularly infectious due to the large number of mites. Although scabies is not usually spread by clothing or bedding, skin scales with attached mites in atypical scabies may spread into the environment.

Aqueous malathion lotion or Permethrin dermal cream are recommended for treatment [4]. The cream should be applied to all areas of the body usually below the neck, but including the face and scalp in children and the immuno-compromised. This should be repeated after 7 days to ensure that any larvae surviving the first application are killed. Cases can return to school or work after the scabicide has been applied. Itching can persist after treatment and is not an indication of treatment failure or wrong diagnosis. All contacts in the same house, as well as boyfriends and girlfriends, should be treated irrespective of absence of symptoms, and all at the same time to avoid re-infection. Clothing and bedding should be laundered on a hot washing machine cycle to kill the mites. We report lessons learnt during the management of a scabies outbreak in a further education college among a group of persons with learning disabilities (LD) in Gloucestershire.

On 11 March 2004, the Gloucestershire Health Protection team (GHPT) was notified of four cases of scabies diagnosed by General Practitioners (GP) among persons in a local college. Further information revealed that the affected individuals were two special-needs students (one in residential care), and two teachers, all of whom were using the same computer room. Those affected belonged to a subset of the college population that consisted of 108 students and 41 members of staff. The students required their teachers' help with dressing, swimming, and trampolining suggesting regular skin-to-skin contact; and most were housed in five groups of homes/LD support centres.

The outbreak control measures instituted included prompt treatment of the cases, exclusion of cases until treatment was complete, whilst any other suspected cases were advised to consult their GP for medical assessment.

Given the characteristics of the student group and the high possibility of skin-to-skin contact a decision was taken to offer mass prophylaxis using lyclear dermal cream (Permethrin 5%) or Derbac M (aqueous malathion 0.5%) to all the students in the group and their teachers. The GHPT requested details and home addresses of all staff and students from the college in order to inform the GPs about the



Fig. Media reports of scabies outbreak.

outbreak, and to solicit their support in its management. Considerable care was taken in choosing the dates for mass prophylaxis, as the college had no prior experience of such an activity, and enough time had to be given to ensure proper organization. It was equally important to undertake prophylaxis as soon as possible. Two dates (20 and 27 March) were set aside. The 7-day interval between treatments is consistent with national guidelines. The intervention was delivered through 39 GP surgeries.

Issues encountered during the outbreak were the management of public anxiety and expectations, as some teachers who had minimal contact with the students as well as staff of the residential homes demanded treatment. Interestingly, some teachers identified by the GHPT as needing prophylaxis were rather unwilling to pay for their prescriptions. This outbreak provoked some media interest (see Fig.) because there had been an outbreak some 2 weeks previously in a school for day and residential pupils with challenging behaviour, not far from the college. That outbreak had been managed by registering the pupils as temporary residents with a local GP for treatment. A total of 33 staff members and 33 pupils, some of whom were dispersed across three counties received treatment. This process was expedited by the full cooperation of the head teacher of the institution and sensitive handling by the media.

The media's main current interest was establishing whether there was any link between the two outbreaks. Even though some of the students attending the further education college resided at that institution, we have no evidence that any of the cases were resident at the institution.

Another issue encountered during the college outbreak was ensuring complete case ascertainment. Two affected students, who were not initially identified

by the college, were brought to the attention of the GHPT by a voluntary organization. Obtaining informed consent before prophylaxis posed some challenges, due to varying degrees of LD experienced by the client group, which ranged from mild to moderate. We sent out the Department of Health's leaflet on Consent [5] to the students and their parents/carers with consent slips and scabies information leaflets to enable them make an informed decision.

One key aim of the outbreak control was to achieve a coordinated approach to mass prophylaxis, i.e. that all eligible individuals were to have access to the intervention at the same time for optimal effectiveness. The college had initially informed the GHPT that the subgroup consisted of 90 students and 30 teachers. However, the fax list sent contained the contact details and names of 108 students and 41 staff members. Despite this, the two students identified by the voluntary organization were not on the list. Furthermore, some students had moved from their homes since registration with the college. Seven of the students were registered with GPs whose practices were not in Gloucestershire. Their GPs were contacted by letter and requested to prescribe prophylaxis. There were several other administrative problems.

Despite the time interval between outbreak detection and the dates for mass prophylaxis, some parents/carers still received their letters too late to be part of the coordinated treatment application. These individuals were advised to apply the cream as soon as possible. A handful of GPs were reluctant to give prophylaxis, and the GHPT had to further explain the rationale for the recommendation.

No further cases of scabies have been reported at the college. The college has also revised its information request form from new students to include GP details, and also advised that all students promptly inform the college about changes to their contact details.

The management of this outbreak has reinforced to us the importance of early recognition and diagnosis in the control of scabies infection, and the key role of GPs in this process. The paramount importance of a coordinated approach to mass prophylaxis in the control of scabies was recognized, as were the possible challenges that might be encountered in trying to achieve this. The good working relationship

that the GHPT had with the local GPs helped considerably. Securing informed consent was particularly important in this outbreak management, as it helped ensure compliance with treatment and subsequent successful achievement of outbreak control, particularly when viewed against the backdrop of the earlier outbreak in a neighbouring institution. The need to have readily available and up-to-date information including contact details of staff and students in an educational institution cannot be over-emphasized. The GHPT developed a checklist for managing scabies outbreaks which clearly states the information and other requirements for mass prophylaxis. We have also contacted all known adult education establishments in Gloucestershire, stressing the importance of routinely collecting and updating contact and GP details of staff and students. This outbreak generated some media interest, and our experience has emphasized the need for proactive management and engagement with the media, particularly when vulnerable groups are involved.

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DECLARATION OF INTEREST

None.

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