Contemporary Themes

Pop-music Festivals: Some Medical Aspects

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British Medical Journal, 1971, 1, 218-220

Introduction

In the past few years pop-music festivals on both sides of the Atlantic have rapidly increased in popularity—and length. Press and television have tended to emphasize various aspects of these assemblies, particularly the sexual licence and drug addiction, so that it was with some apprehension that—though we had agreed to staff a festival voluntarily, as we could not obtain fees—we approached our task on the Friday night. In the event, this festival was orderly and most of the medical problems were the run-of-the-mill sort which doctors meet every day in general practice or in a hospital casualty department. Nevertheless, comparatively little has been written about the medical organization for this kind of meeting, and so we here describe our own experiences and make recommendations arising from them.

Venue

The "Hollywood Festival of Music" was held at Madeley, near Stoke-on-Trent, in May 1970. This was a week-end gathering of young people given a total of 24 hours of pop music and all-night entertainment, held in a fenced-off enclosure with staging and amplification. This area contained food tents, accommodation tents, all-night theatres, and lavatories, while the surrounding fields were used for camping in caravans and tents and for car parks. At this time of year the days are warm but the nights cold and even frosty. About 40,000 people were expected to attend.

Medical Organization

We set up our main surgery in a marquee, about 30.5 by 9 m, some distance from the main arena and close to the police control unit, with easy access to the main road. A medical outpost was established in a tent 4.3 by 4.3 m behind the stage. If a second tent had been available it would have been erected among the tents in the "residential" area. Only the main surgery had a floor laid, but unfortunately the ground had a slope and this proved dangerous. The floor, of coco-nut matting, was aimed at keeping the tent dry, particularly at night. Had the money been available, heating in the form of gas or oil (300,000 B.T.U. heaters) would have been installed in the main surgery. The only complaint that the

night staff had was that the marquee became cold and damp during their period of duty.

Because of the short time in which we had to organize the layout there was a great deal of wasted space in the surgery. Though we could take nine stretcher cases and 20 sitting patients, with extra time this could have been increased to 15 stretcher and 30 sitting patients (see Diagram). In addition to the "ward" appearance of the marquee a separate and rather solid stretcher table was provided on which a patient could be laid and examined in private. The whole of the treatment area

Layout of major surgery. 1, 5-gal (22.7-l.) water urn; 2, portable sterilizer; 3, storage cabinets with locks; 4, office; 5, 8-10, dressing tables; 6, wastebin; 7, Anglepoise lamp; 11, stretcher carrier with storage, locked; 12, stretchers on trestles; 13, curtains.

was screened from the outside doorway, but this could also have been improved to give more private cubicles. The tent, which contained one table and a few chairs, was used during the day only for minor treatments.

Staff Welfare

Staff welfare always plays an important part in this kind of large-scale operation, particularly where catering is concerned. Arrangements were made for the staff to dine at one of the local training colleges along with the police, who also provided the transport to and from the college. Having the staff dining away from the site meant that at least a one-hour break was possible for all members. Within an eight-hour shift, however, this was not enough, and the solution would have been to have more members on duty and to give a 15-minute tea-break to each shift. Again, a staff rest-room would have been useful to enable members to relax during the off-duty periods. The provision of newspapers proved popular and we were able to obtain a supply of barley sugar. A constant supply of tea was available from the mobile police can-

teen, and again this meant that staff did not need to bring flasks. If the welfare of staff is constantly paramount they will co-operate beyond the normal requirements, and some of our St. John Ambulance Brigade and Red Cross members worked for up to 16 hours.

After a great deal of thought 36 non-medical staff and 10 doctors were brought together—just enough in this event—to work a multiple-shift system. The local hospitals were informed and possible types of admission discussed with various senior consultants, who gave their whole-hearted support and were responsible for providing such beds, drugs, and equipment as they thought necessary but which are not normally used in general practice. (These were, of course, returned after the festival.)

Casualties

On Saturday morning there were only 20 casualties, but the numbers increased in the afternoon. All doctors on the site were misled by reports of drug-taking orgy-making hippies, and it was soon realized that many young people who looked as though they had taken stimulants were in fact ordinary, excited, and rather tired—and in some cases hungry. Having taken this into consideration it was noted (with some hilarity) that the same symptoms were apparent among the staff, particularly those in the first-aid post arena. In fact, one member said, after listening to the music, "It is a good job I haven't had a couple of gins." This group of 35,000-40,000 had a natural dignity, grace, and happiness that is difficult to credit (from adverse reports) unless it is seen.

As shown in the Table 493 casualties were treated (1.25% of the number attending); of these 16% required medical

treated for drug intoxication, half of them being referred to the local hospital.

Recommendations

May is a month of warm days and very cold nights. When future festivals are held at this time it would be wise to advise the audience to bring warm clothes and blankets or sleeping-bags. Because of the high prices charged on the field they should be warned of the cost of food.

LAVATORIES

At this event lavatory accommodation was not adequate, particularly near the dressing station, where it would have been better to have some type of flush toilet. Lavatories should not only be adequate but should be kept emptied. Probably a minimum of one lavatory per 250 people would be enough for a three-day event in closed accommodation. This is based on the figure of three minutes per occupant and each person using the lavatory four times a day.

WATER SUPPLY

We have four main recommendations about water supply. Firstly, running water should be piped into the dressing station and connected to basins fitted with taps. Secondly, at least two taps should be available throughout the accommodation field. Thirdly, washing facilities should be available in the food marquees and travelling vans selling food. Lastly, a water supply should be capable of delivering at least 2 gallons (9 l.) of water per person per day.

MEDICAL FACILITIES

For staffing, there should be a minimum of one doctor and six first-aid personnel per 2,000 persons attending. A minimum of 18 people should be on duty for the day shifts, which could be divided between the outposts, patrol, and surgery. Moving the staff so as to give them duty at all stations is also important. Night shifts should have a staff of eight, at least one member being a State-registered or State-enrolled nurse. At least one ambulance crew should remain on night duty. The doctors should be classified as follows: a senior medical officer, who is responsible for all medical cases; a duty commander, who is responsible for the entire operation and who is in liaison with the senior medical officer. The duty commander will have duty officers, who will report on all hospital patients in writing and see that all other cases are recorded in writing by the member treating them. The State-registered nurses will help the duty doctors.

Essential equipment should include the following: one large marquee, as a major surgery, fitted with floor, heating, running water, and electric light; trestles on which stretchers are placed; a screened area designed to provide private treatment; storage cupboards with locks; waste-disposal bins, emptied daily or as required; two smaller tents situated in the field for minor treatments only; and a rest room for staff with tables and chairs. A list of medical requirements is given in the Appendix.

A good communications system is also essential. Though we had an internal telephone, this was inadequate because of the time it took to contact the other party. A walkie-talkie system would have been better, and could also have linked the members on patrol with the surgery.

Finally, it is important to remember that food handlers should be free from infection of throat, nose, hands, and bowels and should be prevented from handling the vast quantity of food required if so infected.

Casualties dealt with at Pop-music Festival

Disease or Injury	No. Treated by S.J.A.B. or Red Cross	No. Referred to Doctors	No. Treated in Hospital	No. Sent Home
Allergy	2	2		1
Alcoholic intoxication ..	2	2	1	
Anxiety state	1	1		
Asthma	1	1		
Bee-stings	2	1		
Blisters of feet (minor) ..	12			
Burns (including sun-burn)	108	5		
Coryza	2	2		
Diabetes (known)	2	1		
Digestive disorders (including gastroenteritis)	13	6		
Dog-bites	2	2		
Drug intoxication (including phentermine, butobarbitone, L.S.D., and cannabis)	8	8	3	
Dysmenorrhoea	3	1		
Exhaustion	8	7	2	
Ear infection	1	1		
Foreign bodies (mainly in eye)	6	1		
Headaches (including migraine)	228	4		
Injuries (to limbs, neck, and head)	8	8	3	
Lacerations (minor)	62	13		
Orchitis	1	1		
Pharyngitis	1	1		
Sepsis (including cellulitis of left eyelid, dental abscess, and vaccination site)	7	7		
Sinusitis	1	1		
Tetany	1	1		
Tonsillitis	4	4		
Toothache	7			
Total	493	81	9	1

attention and 2% treatment in hospital; probably a further 250 patients with trivial injuries were treated but not recorded. Drug abuse had been discussed with the police, and it was agreed that "intoxicated" patients would be dealt with by the medical staff but information about drug pedlars would be given to the police. A total of eight people were

Appendix

The following is a list of suggested medical requirements:

Instruments Cheatle's forceps Sinus forceps Suture forceps Dissecting forceps Sharp-pointed scissors Scalpel Scalpel blades Suture needles Nylon, catgut, and silk sutures Hypodermic syringes (2 ml and 10 ml) Hypodermic needles (25 S.W.G. $\frac{1}{2}$ in (1.6 cm); 21 S.W.G. $1\frac{1}{2}$ in (3.8 cm)) Assorted splints Dressings Savlon liquid (12 bottles) Surgical spirit (6 bottles 500 ml) Methylated spirit (2 bottles 50 ml) Savlon cream (3 tubes) Safety pins (2 boxes of 144 assorted) Zinc oxide plaster (3 rolls 2 in by 5 yd (5 cm by 4.6 m); 12 rolls $\frac{1}{2}$ in by 5 yd (1.3 cm by 4.6 m)) Elastoplast (6 rolls 3 in by 1 yd; 7.6 by 90 cm) B.P.C. white bandages (24 rolls 1 in by 6 yd (2.5 cm by 5.5 m); 24 rolls 3 in by 6 yd (7.5 cm by 5.5 m); 24 rolls 2 in by 6 yd (5 cm by 5.5 m); 24 rolls 4 in by 6 yd (10 cm by 5.5 m)) Triangular bandages (100) Crêpe bandages (12 rolls 5 in; 12.7 cm) Elastic adhesive bandages (12 rolls 3 in; 7.6 cm)		Inflatable splints Stethoscope Auroscope Ophthalmoscope Sphygmomanometer Clinical thermometer Oxygen equipment Intravenous giving-sets Sterilizer (spirit type) Anglepoise light Spotlight Torches Medicaments Aspirin (paracetamol mostly used) (1,000 tablets) Oxytetracycline (100 250-mg tablets) Franol (100 tablets) Butobarbitone (50 tablets) Migril tablets Chlorpheniramine (50 4-mg tablets) Phenoxymethylpenicillin (100 tablets) Chlorpromazine (100 25-mg tablets) Lomotil (100 tablets) Sodium chloride with dextrose tablets Injections Diazepam (12 of 10 mg in 2 ml) Mathadone (12 of 10 mg in 2 ml) Chlorpheniramine (12) Syntometrine (3) Saline (2 of 1,000 ml) Miscellaneous Soap (8 tablets) Eye-bath (plastic) Nail-brushes in containers (2)		Assorted plaster dressing (2 boxes, industrial) Gauze (30 rolls 6 yd; 5.5 m) Small lint dressings (24 No. 7) Cotton-wool (15 rolls 16 oz; 450 g) Visquin 500 (1 piece 12 in by 6 ft; 0.3 by 1.8 m) Sterile sanitary towels for childbirth (3 packets) Benlylin expectorant Chlorhexidine concentrate Calamine lotion Kaolin and morphine mixture Cetrimide concentrate Atropine eye-drops Otrivine-antistatin eye-drops Fluorescein eye-drops Chloramphenicol eye-drops Otrivine-Antistatin ear-drops Chloramphenicol ear-drops Sofra-Tulle (6 packets of 10 pieces) Framycetin cream (3 containers of 15 ml) Chlorpromazine (12 of 50 mg in 2 ml) Pethidine (12 of 100 mg) Lignocaine 2% (2 of 20 ml) Phenobarbitone (3 of 195 mg in 1 ml) Disposable towels (3 rolls) Paper tissues (1 box 30 by 30 cm) Disposable cups (500)	
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Therapeutic Conferences

Bronchial Asthma

FROM THE DEPARTMENT OF THERAPEUTICS AND PHARMACOLOGY, ABERDEEN UNIVERSITY

British Medical Journal, 1971, 1, 220-223

Professor A. G. MACGREGOR: Recently there have been some interesting developments in the treatment of asthma, and as it happens we have three patients in our wards who can illustrate some of them. One tends to think of asthma as a minor ailment, but the observation that the mortality rate in some childhood age groups is as high as leukaemia is disturbing, particularly as some of these deaths have been associated with the inappropriate use of potent drugs. But before we consider the newer drugs we must emphasize the general principles of management of the asthmatic patient.

Dr. J. C. PETRIE: Yes; as in all medical practice, drug therapy alone is only one aspect of treatment. It is important, particularly in asthma, that the patient should have confidence in his attendants and environment. In some cases admission to hospital in itself results in a prompt clinical improvement. Unfortunately the precise aetiology of asthma is obscure, but infection, psychological factors, and allergy are often associated with exacerbations. Identifying and removing or avoiding a precipitating factor is as important as is drug treatment, which aims at reducing airways obstruction and improving ventilation and perfusion of the lungs.

Dr. R. A. WOOD: I agree, but rational drug therapy is relatively more important during an exacerbation.

Dr. PETRIE: Simple measures—such as humidification of inspired air or oxygen, instruction in breathing and coughing

exercises, and attention to adequate hydration—will do much to help reduce airways obstruction aggravated by tenacious secretions. But one must first exclude other causes of wheezing—in young children particularly inhalation of a foreign body, and in older patients cardiac asthma.

Professor MACGREGOR: These general points are extremely important.

Case 1—Episodic Airways Obstruction

Dr. WOOD: This 24-year-old girl gets occasional episodes of wheezing with prolonged expiration. She has no evidence of infection and we've not been able to identify any allergen. She is intelligent, and comes from a difficult social background. Her general practitioner has recently changed her therapy from a preparation containing ephedrine to salbutamol by mouth and by inhalation. As a child she taught herself to inject adrenaline subcutaneously, but on one occasion she was admitted to hospital with an acute episode of airways obstruction. This responded to general measures and aminophylline given slowly intravenously.

Professor MACGREGOR: This brings us to the rationale for the use of all these various bronchodilators. Dr. Petrie?

Dr. PETRIE: Salbutamol or orciprenaline, either by mouth or by inhalation, are the drugs of choice for treating the occasional episode of wheezing. They have been developed from isoprenaline and resemble it structurally, but the structural modifications have prolonged the duration of action to over three hours as well as increasing the selectivity.

Professor MACGREGOR: You mean the effect of drugs on beta adrenergic receptors. We discussed the two distinct types of adrenergic receptor—alpha and beta—when we considered the treatment of hypertension.

Appointments of Speakers

A. G. MACGREGOR, M.D., F.R.C.P., Professor of Therapeutics and Pharmacology.

J. C. PETRIE, M.B., M.R.C.P., Lecturer in Therapeutics.

R. A. WOOD, M.B., M.R.C.P.ED., Lecturer in Therapeutics.