

Van die Redaksie/Editorial

Busongelukke

Busse en luuksebusse word in die algemeen as 'n redelik veilige metode van vervoer beskou, behalwe in uitsonderlike gevalle wanneer 'n opsienbare katastrofe plaasvind. Baie min inligting oor hierdie gevalle verskyn in die mediese literatuur. Onlangs het groepe in drie Deense stede verslag gedoen oor ondersoek wat na die minder skouspelagtige soort ongelukke wat in die daaglikse roetine-ritte van hierdie vervoermiddels kan plaasvind, ingestel is.

Denemarke is 'n klein, plat land met uitstekende publieke vervoerdienste in die stede sowel as in die tussengeleë platteland, sodat busse in die afgelope jare toenemend gewild geraak het by alle klasse van die gemeenskap, terwyl ongeluysifers gelukkig nie dieselfde styging getoon het nie.

Møller *et al.*¹ het 'n epidemiologiese studie uitgevoer wat alle persone wat oor 'n 12 maande-periode in die stad van Aarhus in 'n busongeluk betrokke was, ingesluit het. 'n Totaal van 183 buspassasiers was gedurende hierdie tydperk beseer, waarvan twee-derdes vrouens was. Niemand het omgekome nie en net ongeveer 10% het hospitaalbehandeling ontvang.

'n Soortgelyke studie in Odense,² 'n kleiner stad, het 127 beseerde persone oor 'n 5 jaar-periode ingesluit, waarvan vrouens weer eens in die meerderheid was, met ook geen sterfgevallen nie. Gedurende hierdie periode het die busdiens jaarliks ongeveer 27,5 miljoen passasiers oor 'n gemiddelde afstand van 4,6 km vervoer.

Die derde studie deur Albrektsen en Thomsen³ het oor 'n 2 jaar-periode met 221 busongelukke in Frederiksberg (feitlik 'n deel van Kopenhagen) te doen gehad. Een-entertig pasiënte is tot die hospitaal toegelaat en 1 het gesterf.

Die algemene afleidings van al drie studies is dieselfde. Busse is 'n redelik veilige vervoermiddel en beseerde passasiers doen baie selde ernstige beserings op. Die mees algemene beserings is kneusplekke en frakture (ongeveer 25% in die Aarhus- en die Odense-reeks). Oop wonde en konkussies is ongewoon, en slegs 15% van alle beserings sal as ernstig of akute geklassifiseer word volgens die Verkorte Beseeringskaal van die Amerikaanse Vereniging vir Outomobile Geneeskunde.

Wie word beseer? Vrouens en kinders loop die grootste gevaar, asook bejaardes. Daar is 'n bykomende risiko as die individu handbagasie of 'n baba dra (68% van die beseerdes). Staande passasiers was natuurlik meer blootgestel.

Wanneer kom die beserings voor? In slegs 10% van

gevalle was daar 'n botsing. Die twee hoof faktore wat tot die besering bygedra het, was vaartvermindering of -versnelling, en met die opklim en die afklim van die bus. Laasgenoemde twee situasies het meer met ernstige beserings gepaard gegaan.

In die Odense-reeks het meer as 'n kwart van die beseerdes 'n vorm van gestremdheid gehad — lokomotoriese ongeskiktheid, gehoor- of sigprobleme, of selfs psigiatriese siekte. Alkohol en swangerskap was nie bydraende faktore nie.

'n Verdere verslag van Aarhus⁴ handel slegs oor noodlottige bus- of luukse-busongelukke en dek 'n 12 jaar-periode waarin 81 persone in diesulke ongelukke gesterf het. Sommige van die beseerdes het nie werklik in die bus gery nie; 17 kinders het bv. op pad na of van die bus af gesterf. In teenstelling met die verslae van algemene beserings was twee-derdes van die slagoffers in hierdie reeks manlik.

'n Eienaardige bevinding is dat die meeste ongelukke op 'n Vrydag voorgekom het met die minste ongelukke gedurende die naweek. Daar was hoogtepunte in die middel van die voormiddag en namiddag — presies die tye waarop pensioentrekkers die meeste die busse gebruik het.

In 'n redaksionele artikel beraam Dalgaard⁵ dat die risiko van 'n besering vir 'n Deen wat per bus reis, insluitende die tydskuur van sy huis af na die plek van sy werk, dieselfde is as wanneer die persoon sy motor na die werk sou geneem het. Dit sal interessant wees om so 'n vergelyking in Suid-Afrikaanse stede te tref.

Voorkomende maatreëls wat voorgestel is om die veiligheid van busvervoer te verbeter, sluit die voorsiening van busbane waarvan ander verkeer uitgesluit is, langer afstande tussen busstoppe, en die versigtige beplanning van skool-busroetes in, sodat kinders nie besige strate hoef te oorkruis nie. Vanselfsprekend sal beter bestuurdersopleiding in terme van minder skielike versnellings en remming ook help. 'n Bietjie hoflikheid om bejaardes en gestremde persone eerste op en van busse af te laat klim, sal ook geen kwaad doen nie, en sal die gebruik van busse meer aantreklik maak vir hierdie persone.

1. Møller BN, Grymer F, Christensen ST, Møller-Madsen B, Hermansen C. Busulykker. *Ugeskr Laeger* 1983; 145: 187-190, 191-194.
2. Knudsen K, Otto, J, Hansen OR, Juhl M. Kvaestede buspassagerer. *Ugeskr Laeger* 1983; 145: 194-198.
3. Albrektsen SB, Thomsen JL. Ulykkestifaele blandt buspassagerer pa Frederiksberg. *Ugeskr Laeger* 1983; 145: 198-201.
4. Dalgaard JB, Tørring P. Dødsulykker ved bus- og rutebilkørsel. *Ugeskr Laeger* 1983; 145: 201-207.
5. Dalgaard JB. Bus-ulykker. *Ugeskr Laeger* 1983; 145: 185-186.

Medical effects of nuclear war

It is noteworthy that the science fiction programmes frequently shown on our television screens mostly have to do with war and the killing of people by increasingly sophisticated means. If the assessment of the future by the makers of these films is soundly based in human psychology, and it probably is, then nuclear war (which they usually evade as a subject) must be regarded as a distinct possibility.

With this in mind the 1981 annual representative meeting of the British Medical Association resolved that: 'the board of science and education should review the medical effects of nuclear war and the value of civil defence in order that the British Medical Association should form a policy'. Arising out of this the BMA set up a working party chaired by Sir John Stallworthy, the eminent Oxford obstetrician and gynaecologist.

His working party has examined much written and oral evidence and produced a report which has been published and is now up for debate at the BMA's annual representative meeting in June. (A summary of the report is reproduced¹ with editorial comment² in the *British Medical Journal* for 12 March 1983.)

Although with its small dimensions and its high population density and wide distribution of targets Britain is in a uniquely vulnerable situation, many of the home truths contained in this valuable document will be applicable elsewhere. The report points out that in 1980 the total explosive power of world nuclear arsenals might well have been 10 000 - 20 000 megatons, and that a nuclear attack might well be of the order of 200 megatons (the bomb dropped at Hiroshima was 12-20 kilotons or at most 0.02 megaton in size) and that the medical services of any target area would be either totally destroyed or totally helpless in the face of such a catastrophe.

They rightly point out that there are great areas of uncertainty in all their inferences, since nobody knows where an attack would take place and nobody has direct experience of a nuclear attack of this magnitude. Nevertheless, they conclude that nobody in Britain would be safe and that evacuation of populations is impossible. Home shelters of the type recommended by the Home Office in Britain are useless, and any survivors in public shelters would face overwhelming problems in the world to which they emerged.

Water would be a first priority for the survivors, with food, shelter, fossil fuels and electrical power following. Even in the vast open spaces of South Africa there would be grave problems — in Britain they would be unsurmountable. Moreover, there would be considerable atmospheric perturbation. It is likely that agricultural production over the entire hemisphere would be severely disrupted, with ensuing famine and disease. Survivors would therefore not return to a simple rural economy but

to primitive existence, and they would not have the skills of their 18th century forebears anyway.

Meanwhile, say the working party, even a single nuclear bomb dropped on a major city would completely overwhelm the entire medical services in Britain. Multiple attacks would lead to complete collapse of the National Health Service.

This reading of the medical consequences of nuclear war is in line with the views of many professional groups in the USA, of which the most important is the American Medical Association, whose House of Delegates spelled out a message similar to that of the BMA working party in December 1981.

In other words, like the madness of rabies there is no cure for the madness of nuclear war — no palliative, no rehabilitation. As with rabies, there is only prevention. In his Shattuck Lecture to the Massachusetts Medical Society last year Caspar Weinberger, US Secretary of Defense, admitted this when he said: 'Nuclear war is so terrible that it must not be allowed to happen . . .'³ What can members of the medical profession do to stop its happening? Arnold Relman,⁴ influential editor of the *New England Journal of Medicine*, in an editorial distinguished clearly between their role as professionals, in which they can warn of the medical consequences of nuclear war, and their role as citizens in which they can express their opinions or convictions about the best way to prevent nuclear war, but without confusing personal conviction with a professional expertise they do not possess.

However, in all the furore about nuclear war two other issues must not be lost sight of. The first is the strong possibility that wars can continue to exist without benefit of nuclear weapons, and that the medical profession should be prepared to deal with the consequences of these. The second is that they should not confuse civil defence against this type of warfare, or for that matter against natural disasters of fire and flood and earthquake, with so-called civil defence against nuclear war. Certainly in Britain some local authorities seem to have confused the two and neglected the everpresent danger of natural catastrophes or major accidents in peacetime because of misinterpretation of the emotive term: 'civil defence', which simply means organized protection against disaster of any kind. And as the Laingsburg flood and the Australian bush fires have taught us, you do not need nuclear bombs to destroy communities.

1. BMA Board of Science and Education. Annual report of Council 1982-3: Appendix II. Medical effects of nuclear war. *Br Med J* 1983; **286**: 910.
2. Anon. Doctors and the bomb. *Br Med J* 1983; **286**: 823.
3. Weinberger CW. Shattuck Lecture — remarks by the Secretary of Defense to the Massachusetts Medical Society, May 19, 1982. *N Engl J Med* 1982; **307**: 765-768.
4. Relman AS. Physicians, nuclear war and politics. *N Engl J Med* 1982; **307**: 744-745.