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Description of a SWOV Pilot Study on Integral Registration  
in Hospitals of Road Traffic Accidents

The Institute for Road Safety Research, SWOV, started a pilot study on an integral registration of road traffic accidents in the city of Rotterdam.

Rotterdam is a big port of 700,000 inhabitants. It has a centrally organized transport for casualties and six hospitals where nearly all road traffic victims (over 4,500 in 1966) are treated.

The pilot study was started in October 1969 and was planned for a period of two years.

All victims of traffic accidents on the public road within the limits of the municipality and transported to a hospital, are involved in the study.

The criterion for a road traffic accident is every injury sustained on a public road not being the result of some other defined cause, thus every injury received by a road user is included in the widest sense of the word.

The participants in this study are:

- 1) the GG&GD of Rotterdam (Municipal Medical and Health Service)
- 2) the hospitals and general practitioners
- 3) the police and Municipal Traffic Department.

Method and Participants' Tasks

Whenever an ambulance of GG&GD takes a road accident casualty to hospital a blood container with 4 self-sticking, perforated number slips is delivered to the emergency room personnel. (This blood container has sodium fluoride and heparin as an anticoagulant).

A supply of these blood containers is kept in a box on the dashboard of the ambulance.

The male ambulance-nurse sticks one number slip on the ambulance report form which is completed for each victim. The form includes the reporting-time, time of arrival, type of road user, first aid rendered and type of transport.

The data on the ambulance-report form are copied by GG&GD on a special form for the use of SWOV.

These forms are the essential basic documents for this study. Their completeness is reliable; the number of

male ambulance-nurses is relatively small and they are highly qualified and well-trained.

As a special safeguard the ambulance-attendant, having handed over the victim, passes on the number of the blood container to the central office, which is required to keep a check.

The number of the blood tube is a permanent point of reference for the victim concerned.

One of the three remaining number slips of the blood container is attached to the victim's medical file and another is attached to a separate form for the use of SWOV, on which only the personal data of the victim are mentioned. This SWOV form is kept in a register.

The object of this proceeding is to check the GG&GD special SWOV forms and to facilitate the collection of the medical files.

The last number slip remains attached to the container. 2 - 5 ml venous blood are taken by the doctor or nurse and are put in the container. After having noted the date and time of taking the blood the containers are kept in the refrigerator.

In the hospital a label with the words "diabetis, epilepsy, cardiovascular disease, use of drugs" is put on the notes of the road accident victim. The doctor in charge has only to fill up this stamp next to the usual medical data. Bloodtaking and completing the sick-lists by filling up the stamps are the only excess work asked from the doctor on behalf of the pilot study.

Each week our assistant visits the hospitals and collects the files of the road accident victims. The medical and personal data of the victim are copied on to a punch-card. At the same time the assistant takes the blood samples from the refrigerator and sends them to the Central Laboratory for Clinical Chemistry of the DYKZIGT Hospital, Rotterdam, which serves as central laboratory for all participating hospitals.

In this Central Laboratory ethanol concentration is determined for each blood sample (by Gaschromatography) and a carbon monoxide saturation (by a titrimetic method) for every tenth sample.

When questions of additional diagnoses arise written inquiries are made of the victim's family doctor. This is done by a secretary who also looks after the recording of police reports. The police send to SWOV a copy of each accident report involving casualties. Another punch-card is then completed with the data supplied by the police.

When no police reports are received in respect of certain casualties, no inquiries are made about them with the police, because some persons may wish to keep the police ignorant of their accidents.

For two categories of victims a somewhat different procedure is followed:

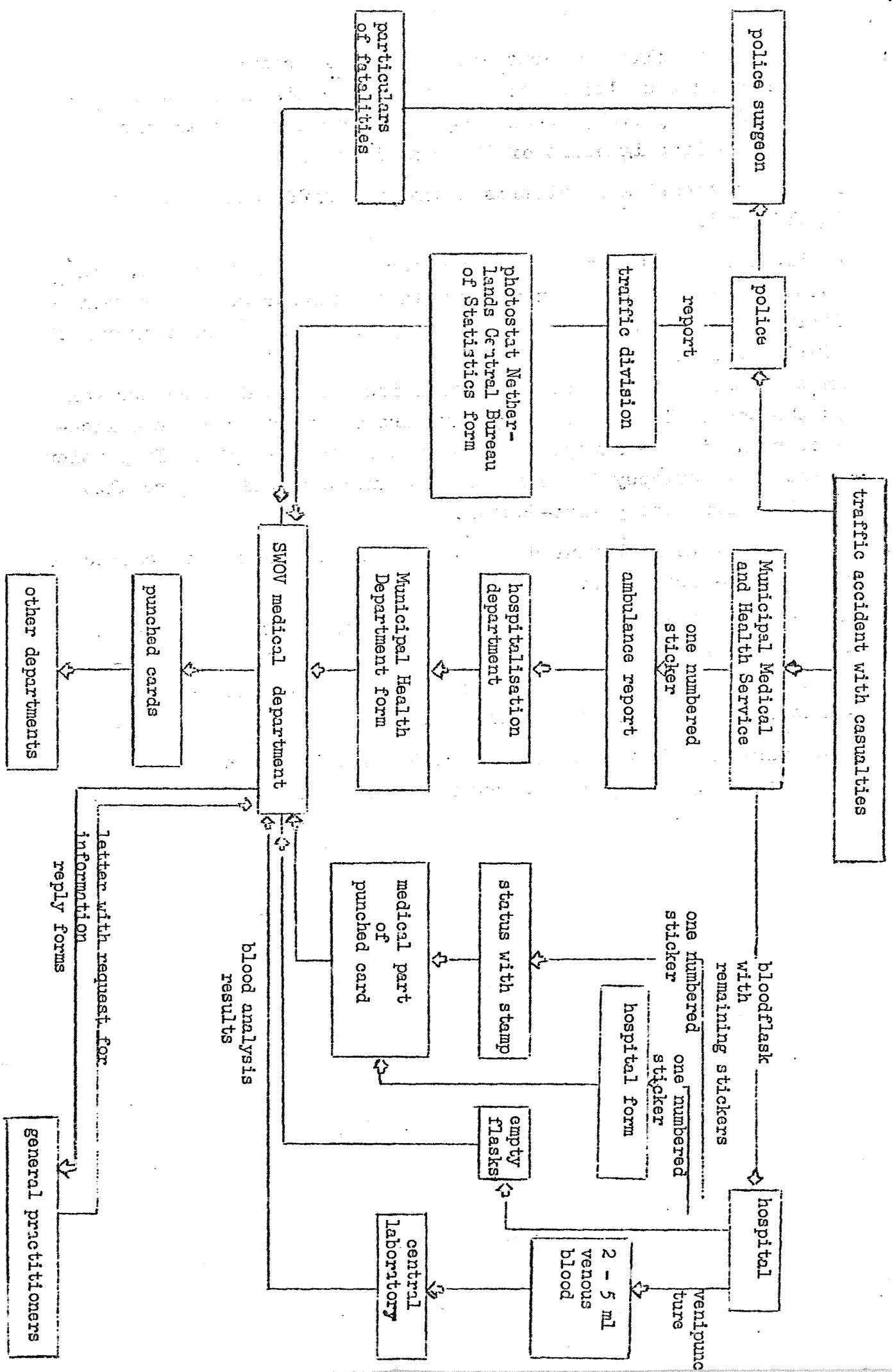
No blood is taken from children under the age of 15 years. In these cases the blood container with the number slips may well be delivered and handled in the same way as the blood containers of adult victims.

In the case of road accident casualties who are dead on arrival at the hospital the necessary data are obtained from the police-doctor who is not always able to take a blood sample. In particular cases where autopsy is performed the autopsy findings are also obtained from the police-doctor.

Finally all the relevant data concerning the victim are collected in a punch-card, viz.:

- data supplied by the ambulance, included on the "GG&GD form"
- data supplied by the hospitals, included on the "Hospital-form"
- data supplied by the police, included on the "CBS-form"
- results of the blood examination.

Some first results of the pilot study will be given at the conference, but they are as yet not available for publication.



OECD INTERNATIONAL SYMPOSIUM ON COUNTERMEASURES TO  
DRIVER BEHAVIOUR UNDER THE INFLUENCE OF ALCOHOL  
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To be held at BMA House, Tavistock Square, London, WC1H 9JP,  
on 22 - 23 September 1971.

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