

Annex 4: Story building injury classification rules

- rules for presenting injury information in the stories –
Hans Baksteen, 7 May 2004

INTRODUCTION

When analysing accident stories sometimes the injuries are described in much detail. If there are many incidents with such detailed injury descriptions the number of injury blocks in the story builder will grow enormously. How can we limit the number of possible injury blocks without losing significant information?

However, there are many more accident descriptions in which the injury descriptions are very rough. The question here is whether it is necessary to search in the more detailed background information databases (like procès-verbals) if available.

So the questions are:

1. What is the best way to classify the described injuries and to record and present the injury information in the block diagrams of the story builder? And: how can we maintain enough (detailed) information without the result of a very complex story builder diagram?
2. When do we need to consult the available more detailed background information about injuries?

ANSWER TO QUESTION 1

Injury classifications systems

There are many injury classification systems. Examples are:

- EC/ESAW
- WHO/ICECI 1.0
- ILO/ICLS
- TOOCS2 (Australië)
- RIDDOR95 (UK)
- Fonds Arbeidsongevallen (België)
- OICCM (USA)

The injuries in the Dutch Labour Inspectorate Database, GISAI, are described conform the ESAW-classification method (=European statistics on accidents at work).

ESAW classifies the injuries with 2 variables¹:

- The injury type
- Injured body part

Every injury type is coded with a number of 3 characters (ESAW distinguishes 46 injury type codes) .

Every injured body part is coded with a number of 2 characters (ESAW distinguishes 41 body part codes).

In this way *every injury* can be classified with a number with 5 characters: the body part number followed by the injury type number. This applies also for unknown injuries and unknown body parts.

Compared to the other injury classification systems ESAW is moderately detailed. There are more detailed and less detailed classification systems.

Advantages of the ESAW-classification are:

- the classification categories are not too detailed (this is an advantage because we do not expect to meet very much detailed injury information in most of the incident descriptions)
- the classification system contains head categories (for classifying injuries with less detailed information) and subcategories (for classifying injuries with more detailed information)
- the classification method is being used in parts of Europe and by the Dutch Labour

¹ See *Europeans statistics on accidents at work (ESAW Methodology, 2001 Edition, Appendices B and C)*; or the Dutch version *Europese statistiek van Arbeidsongevallen, Methodiek, Uitgave 2001, bijlagen B en C*

Inspectorate (the GISAI database uses the ESAW-injury classification system)

Disadvantage of the ESAW-classification method is that the injury classification does not deal with the loss of function of a body part. But this disadvantage applies also to the other mentioned injury classification systems.

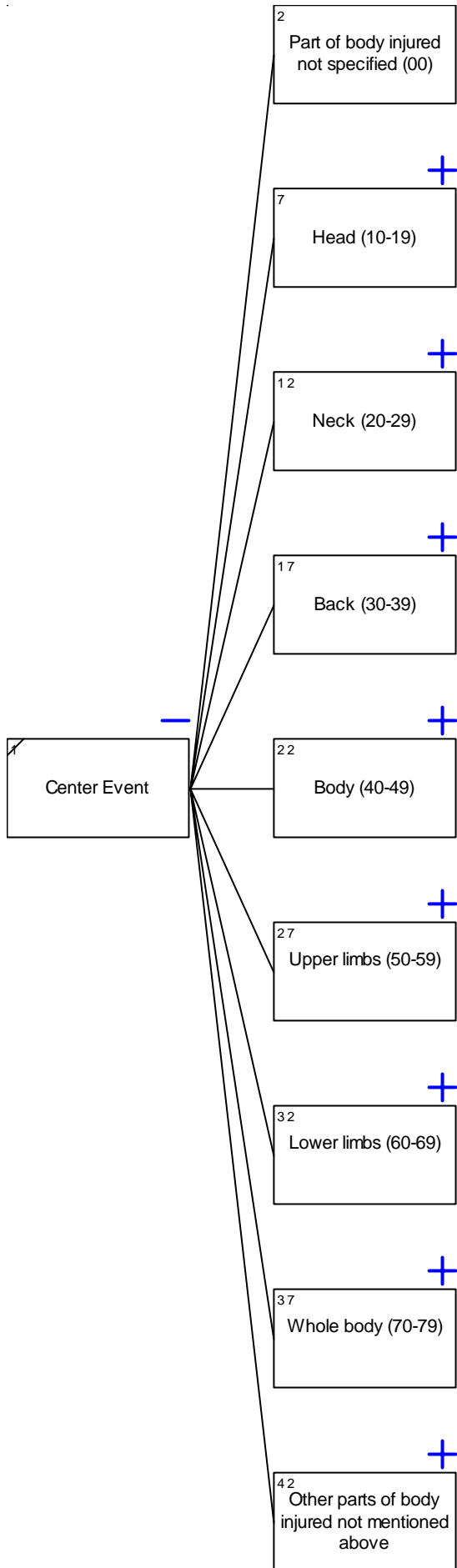
Proposal for using the ESAW-classification system

In order to prevent the production of very complex RHS-branches of stories build with the story builder we propose to present the injury information in two blocks:

The First block contains specified information about the injury (body-part/type) and the hospitalization:

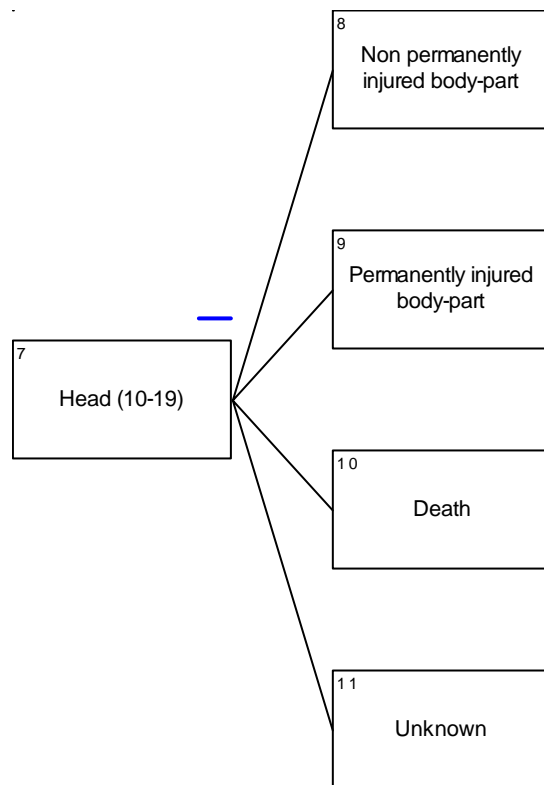
- the specified body part (ESAW-code with 2 characters)
- the type of injury (ESAW-code with 3 characters)
- information about hospitalization (H: hospitalized; NH: non-hospitalized; HNS: hospitalization not specified)

To keep the structure simple we propose that this first block is made of one of the 9 ESAW-head categories of the involved injured body parts (see story builder presentation on the next page).



The second block (see story builder presentation hereunder) contains information about the final result of the injury:

1. a block with information about *non-permanently* injured body-parts
2. a block with information about *permanently* injured body-parts
3. a block with incident numbers of incidents with injuries leading to *death*
4. a block *unknown* with incident numbers of incidents without any information about the final result of the injuries



Now two situations can be distinguished:

1. The information about the final result of the injury is described in the incident
2. There is no information about the final result of the injury available

Ad1.

It is important to record all available information about the final result of the injury. This should be done by recording the information in one of the first three blocks. In order to fill these blocks consistently scenario builders have to keep in mind the following definitions:

Definition non-permanently injured body-part:

An injured body-part which will totally recover after recuperation or which regains its original function completely.

Result: the IP (injured person) can return to work after the period of recuperation.

Significant variable: days lost (DL) as a consequence of the time period of recuperation in which the person could not work or could only work part-time.

Definitions permanently injured body-part:

An injured body-part which, according to reasonable judgement, will remain longer than two years after its origin².

Two situations can be distinguished:

1. The function of the body-part is partly lost (FPL) for at least two years

The injured body-part will not totally recover after a period of recuperation; the original function of the involved body part is partly lost.

Result: the IP will only partly return to work after recuperation.

Significant variables:

- days lost (DL) as a consequence of the time period of recuperation in which the person could not work or could work only part-time;
- years lost (YL) as a consequence of the percentage of disability (PD; f.e. 60%: after the recuperation period the person can only work 2 out of 5 days) in combination with remaining working years of the IP (age of retirement minus age of IP at the moment of the accident)

The total loss is YL + DL.

2. The function of the body-part is completely lost (FCL) for at least two years

The injured body-part will not totally recover after a period of recuperation; the original function of the involved body part is completely lost.

Result: the IP will never return to work (percentage of disability is 100%).

Significant variable: years lost (YL): remaining years of labour of the IP (age of retirement minus age of IP at the moment of the accident).

Death (DTH)

The result of an occupational accident resulting in death within one year after the accident. The assumption is that the victims who die within one year after the accident will not return to work before they die.

Result: the IP will not return to work and dies within one year.

Ad2.

If there is no information available concerning the final result of the injury than the block unknown should be used.

² Arboret, artikel 9, lid 1