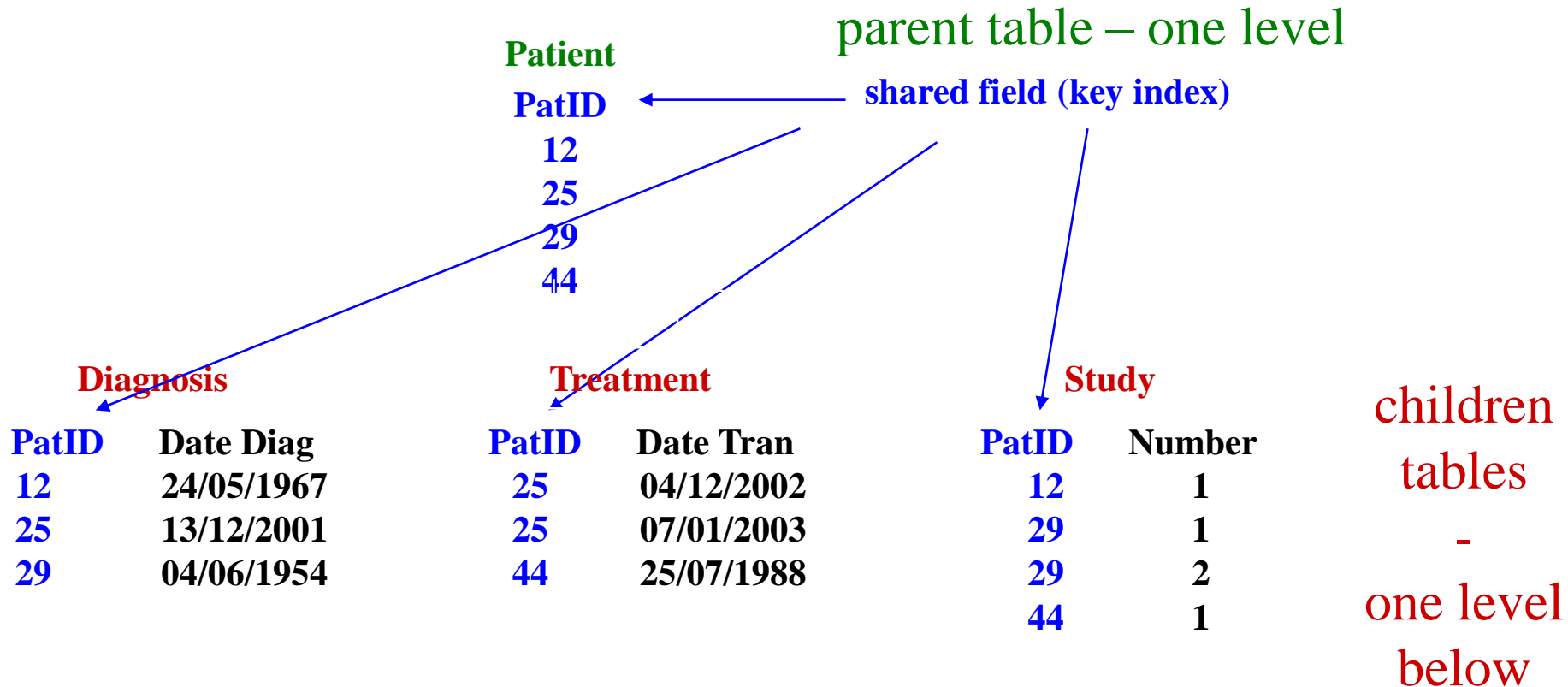


# The EBMT Registry Database

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**Revised: Oct 2017**

# Relational database

## The concept



# Relational database

## The concept



### Level definition

- Series of tables which do not depend on each other's existence or content
- All depend on the existence and content of the same parent table
- They all share at least one field (index) with the parent table and, therefore, among each other.

# Data storage: example

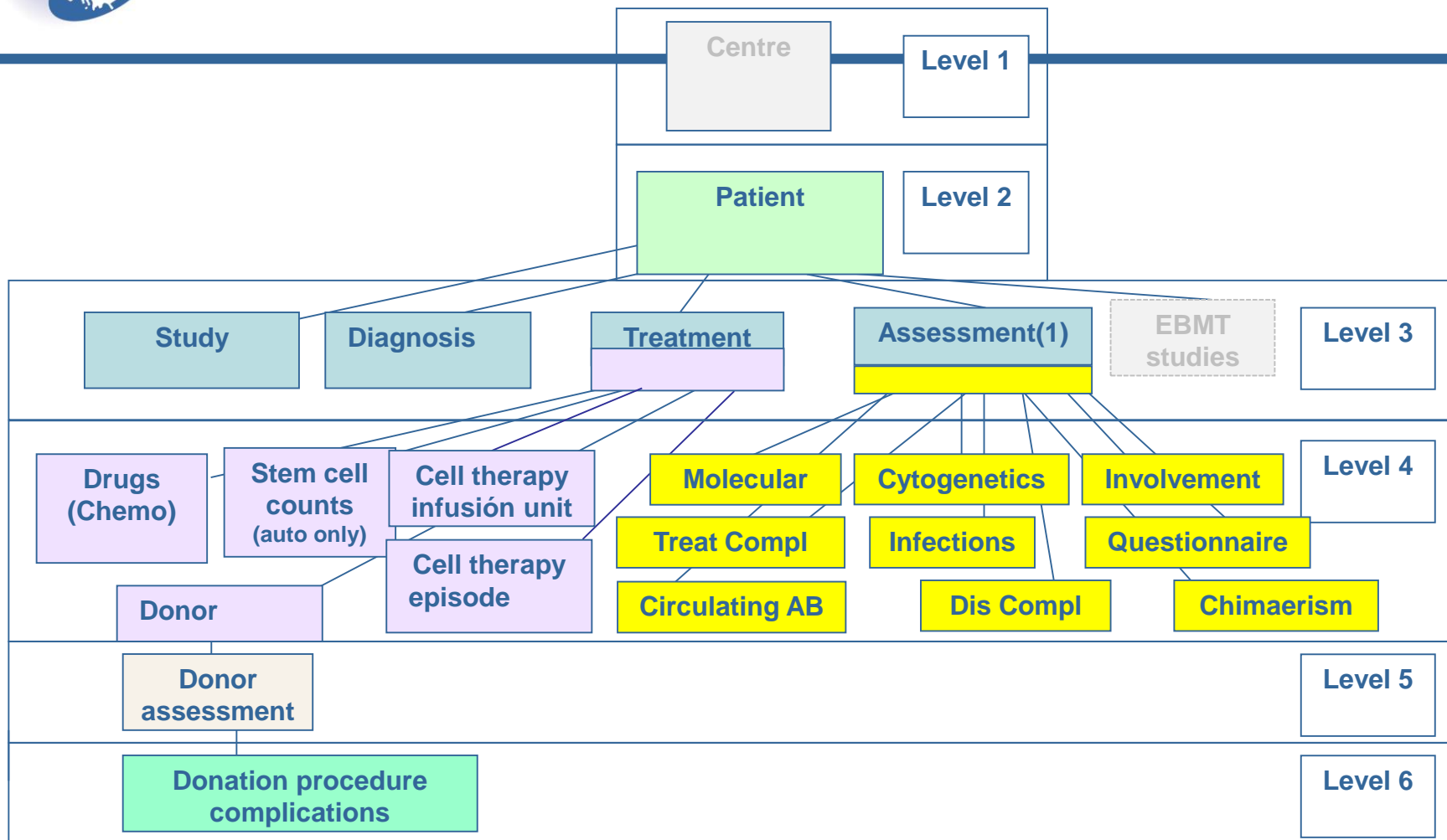
## Flat style

| PatId | WBC* Diag | WBC Treat | WBC Mob | WBC Tran | WBC FUp |
|-------|-----------|-----------|---------|----------|---------|
| 1     | ...       | null      | null    | ...      | ...     |
| 2     | ...       | ...       | null    | ...      | ...     |
| 3     | ...       | null      | ...     | ...      | null    |

## EBMT database

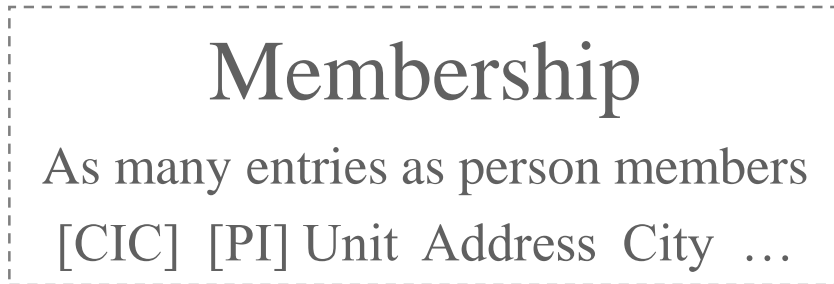
| PatId | Date       | Type     | WBC |
|-------|------------|----------|-----|
| 1     | 02/02/1990 | Diag     | ... |
| 1     | 04/04/1991 | Tran     | ... |
| 1     | 10/10/1991 | Fup      | ... |
| 2     | 01/01/1980 | Diag     | ... |
| 2     | 03/03/1980 | 1st line | ... |
| 2     | 07/07/1987 | Tran     | ... |
| 2     | 12/12/1987 | Fup      | ... |
| 3     | 02/02/1992 | Diag     | ... |
| 3     | 04/04/1993 | Mob      | ... |
| 3     | 05/05/1993 | Tran     | ... |

# EBMT Registry Database



# EBMT database

## Level 1



**level 2**

# EBMT database

## Level 2



### Patient information

date of birth

initials

date of death

### Administrative fields

### Outcome summary

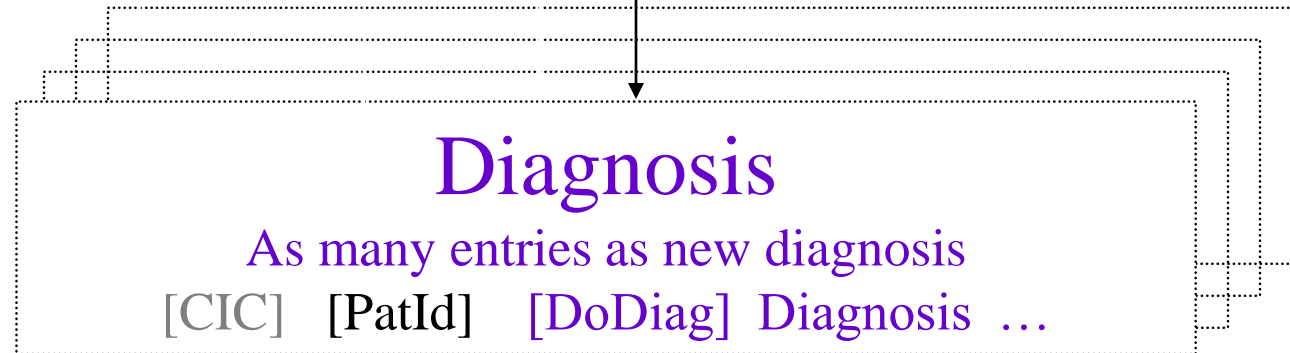
dates of graft

status

date last seen



level 3



# EBMT database

## Level 3



**name of study**

### **Study**

As many entries as studies

**[CIC]** **[PatId]** **[Number]** Study name...



# EBMT database

## Level 3



### Diagnosis

As many entries as new diagnosis

[CIC] [PatId] [DoDiag] Diagnosis ...

date of diagnosis

disease classification: FAB, REAL, etc

stage

secondary origin

# EBMT database

## Level 3



allo or auto  
stem cell source  
reason  
response  
modalities

### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...

level 4

### Drugs (Chemo)

As many entries as drugs

[CIC] [PatId] [DoTrt] [Regimen] Dose Days ...

# EBMT database

## Level 4



### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...



### Drugs (Chemo)

As many entries as drugs

[CIC] [PatId] [DoTrt] [Drug] Dose Days ...

name of drug / protocol  
dose  
units  
route of administration  
date start that particular drug  
date end that particular drug

# EBMT database

## Level 4



### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...



### Stem cell counts

As many entries as cells measured

[CIC] [PatId] [DoTrt] [Source/Timing] Type ...

cell type  
timing  
number of cells

# EBMT database

## Level 4



### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...



### Cell therapy infusion unit (CTIU)

As many entries as CTIU

[CIC] [PatId] [DoTrt] [CTIU] Batch Source...

**unit identification**  
**tissue source**  
**cell types**  
**collection**  
**manipulation**

# EBMT database

## Level 4



### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...



### Cell therapy infusion episode

As many entries as CTIU

[CIC] [PatId] [DoTrt] [DoEpisode] CTIU Route...

date  
unit identification  
route  
cells infused

# EBMT database

## Level 4



### Treatment

As many entries as new treatments

[CIC] [PatId] [DoTrt] SC MoAB Chemo ...



### Donor

As many entries as donors per treatment

[CIC] [PatId] [DoTrt] [DonId] Sex Match ...

donor age  
donor sex  
donor registry  
HLA match  
cell infusion  
donor HLA  
cell manipulaton

# EBMT database

## Level 5



### Donor

As many entries as donors per treatment

[CIC] [PatId] [DoTrt] [DonId] Sex Match ...



### Donor Assessment

As many entries as donor follow up

[CIC] [PatId] [DoTrt] [DonId] [DoDFUp] History...

**history**  
**medication**



# EBMT database

## Level 6

### Donor Assessment

As many entries as donor follow up

[CIC] [PatId] [DoTrt] [DonId] [DoDFUp] History...



### Donor Procedure Complications

As many entries as donor complications

[CIC] [PatId] [DoTrt] [DonId] [DoDFUp] [Complication]  
Date...

complication  
date

# EBMT database

## Level 3



date of assessment  
haematological values  
biochemical values  
disease involvement  
immunophenotyping assessed  
cytogenetics done  
incidence of infections  
incidence of complications  
GvHD  
patient HLA

### Assessment(1)

As many entries as new Assessment(1)

[CIC] [PatId] [DoAssess] Hg WBC ...

### Cytogenetics

As many entries as abnormalities studied

[CIC] [PatId] [DoAssess] [Abnormality] Presence ...

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



**complication  
presence  
description**

### Treat compl

As many entries as treatment complications studied

[CIC] [PatId] [DoAssess] [TComplic] Presence ...

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



**abnormality**  
**presence**  
**description**

### Cytogenetics

As many entries as abnormalities studied

[CIC] [PatId] [DoAssess] [Abnormality] Presence ...

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Infections

As many entries as infections studied

[CIC] [PatId] [DoAssess] [Infection] Presence ...

**infection episode**  
**pathogen**  
**description**  
**isolation method**  
**date started**  
**date end**

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Involvement

As many entries as phenotypes studied

[CIC] [PatId] [DoAssess] [Site] Presence ...

site  
primary  
metastatic

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Molecular

As many entries as molecular markers studied

[CIC] [PatId] [DoAssess] [Marker] Presence ...

**marker  
presence  
description**

# EBMT database

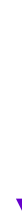
## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Chimaerism

As many entries as molecular markers studied

[CIC] [PatId] [DoAssess] [DoTest] Cell type...

cell type  
% chimaerims  
technique



# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Dis compl

As many entries as disease complications studied

[CIC] [PatId] [DoAssess] [DComplic] Presence ...

**complication  
description  
indication for transplant**

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Circulating AB

As many entries as molecular markers studied

[CIC] [PatId] [DoAssess] [Antibody] Presence ...

antibody  
level  
titer

# EBMT database

## Level 4



### Assessment(1)

As many entries as new assessments

[CIC] [PatId] [DoAssess] Hg WBC ...



### Questionnaire

As many entries as infections studied

[CIC] [PatId] [DoAssess] [Question] Score ...

question  
score