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**S(P)EAR COMMITTEE ANNUAL REPORT 2017**

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The committee received and considered 367 incidents during 2017, compared to 254 in 2016. They were received from 23 organisations in 19 countries.

## 1 Overview

| | Harm to donor | Harm to recipient | Risk of harm | Total |
|---|---|---|---|---|
| Total reported | 323 | 12 | 32 | 367 |
| - Considered not a SEAR (see separate headers) | 10 | 1 | 11 | 22 |
| Timeframe (total) | 313 | 11 | 21 | 345 |
| - Before infusion | - | - | 20 | 20 |
| - During mobilisation | 23 | - | - | 23 |
| - During collection | 17 | - | - | 17 |
| - Short term (<30 days) | 52 | 9 | - | 61 |
| - Long term (>=30 days) | 218 | 2 | - | 220 |
| - UNK | 2 | - | 1 | 3 |
| Graft type (total) | 313 | 11 | 21 | 345 |
| - HPC-Marrow | 66 | 5 | 8 | 79 |
| - HPC-Apheresis | 245 | 3 | 3 | 251 |
| - HPC-Cord | - | 2 | 10 | 12 |
| - MNC-Apheresis | - | 1 | - | 1 |
| - DLI | 2 | - | - | 2 |

## 2 Harm to donor

Three hundred and twenty-three (323) harm to donor incidents were considered. After evaluation 10 incidents were considered as 'not a SEAR', these will be discussed under a separate header.

Sixty-six (66) incidents occurred after HPC-Marrow harvest, 245 after HPC-Apheresis collections and 2 after DLI collection. One hundred and eighty-four (180) affected donors are male, 130 are female and 3 have no sex recorded.

### 2.1 The following type of incidents were reported

#### 2.1.1 Malignancy

One hundred and seven (107) malignancies occurred in the donor in 30 days or more after donation, 1 occurred within 30 days after donation and 2 are unknown.

| Type | n | Time after donation in months [median (range)] |
|---|---|---|
| Breast cancer | 20 | 23 (5 – 204) 1 UNK |
| Melanoma | 17 | 48 (11 – 180) |
| Haematological malignancies* | 14 | 17 (1 – 120) 1 UNK |
| Testicular cancer | 8 | 20 (0.5 – 48) |
| Thyroid cancer | 7 | 24 (11 – 48) |
| Colorectal cancer | 5 | 36 (4 – 132) |
| Seminoma | 4 | 63 (9 – 132) |
| Renal cancer | 4 | 42 (7 – 60) |
| Bladder cancer | 3 | 12 (12 – 48) |
| Chondrosarcoma | 3 | 24 (17 – 60) |
| Prostate cancer | 3 | 36 (24 – 72) |
| Cervical cancer | 2 | 18 (12 – 24) |
| Liposarcoma | 2 | 14 (3 – 24) |
| Tongue cancer | 2 | 66 (36 – 96) |

| | | |
|---|---|---|
| Glioblastoma | 2 | 19 (1 – 36) |
| Oligoastrocytoma | 2 | 39 (30 – 48) |
| Other^ | 12 | 24 (1 – 96) |
| Total | 110 | 24 (0.5 – 204) 2 UNK |

*Haematological malignancies include 1 AML, 1 B-cell lymphoma, 1 CLL, 1 donor derived MDS, 1 histiocytosis X, 1 Hodgkin lymphoma, 1 MM, 5 NHL, 1 plasmocytoma and 1 T-cell large granular lymphocyte leukaemia.
^Other malignancies include 1 adenocarcinoma of unknown origin, 1 brain tumour, 1 cancer of the jaw, 1 cancer of unknown origin, 1 endometrial cancer, 1 oesophageal cancer, 1 fibrosarcoma, 1 grade II astrocytoma, 1 lung cancer, 1 pancreatic carcinoma, 1 squamous-cell carcinoma of sinus and 1 spinal ependymoma.

### 2.1.2 Autoimmune disorders

Sixty-nine (69) autoimmune disorders occurred in the donor in 30 days or more after donation, 5 occurred within 30 days after donation and 1 during mobilisation.

| Type | n | Time after donation in months [median (range)] |
|---|---|---|
| Multiple Sclerosis | 18 | 24 (0.3 – 108) |
| Ulcerative Colitis | 7 | 12 (3 – 60) 1 during mobilisation |
| Rheumatoid Arthritis | 7 | 30 (6 – 36) |
| Psoriasis | 5 | 3 (0.6 – 12) |
| Sarcoidosis | 4 | 20 (8 – 46) |
| Crohn's disease | 4 | 8 (6 – 23) |
| Vitiligo | 2 | 10 (8 – 12) |
| Thrombocytopenic purpura | 2 | 26 (9 – 42) |
| Diabetes Mellitus type 1 | 2 | 11 (10 – 12) |
| Graves' disease | 2 | 27 (12 – 42) |
| Iritis | 2 | 11 (10 – 12) |
| Alopecia | 2 | 13 (12 – 13) |
| Other* | 18 | 24 (0.07 – 60) |
| Total | 75 | 13 (0.07 – 108) 1 during mobilisation |

*Other immune disorders include 1 ankylosing spondylitis, 1 autoimmune thrombocytopenia, 1 coeliac disease, 1 collagenous colitis, 1 CREST syndrome, 1 eczema, 1 eosinophilic esophagitis, 1 erythema nodosum, 1 Hashimoto's thyroiditis, 1 IgA-nephirtis, 1 inflammatory bowel disease, 1 lichen ruber planus, 1 morphea, 1 polyarthritis, 1 polymyalgia rheumatica, 1 sclerodermia circumscripta, 1 SLE and 1 thyroiditis de Quervain.

### 2.1.3 Other incidents

Forty-two (42) other incidents occurred in the donor in 30 days or more after donation, 46 occurred within 30 days after donation, 22 during mobilisation, 17 during collection and 1 UNK.

| Type | n | Mobilisation (n) | Collection (n) | Short term in days [n (range)] | Long term in months [n (range)] | UNK |
|---|---|---|---|---|---|---|
| Infection | 17 | 2 | 2 | 7 (1 – 22) | 6 (2 – 24) | - |
| Cardiovascular | 17 | 3 | 3 | 7 (1 – 7) | 4 (8 – 12) | - |
| Vascular | 16 | - | - | 6 (5 – 16) | 10 (3 – 60) | - |
| Allergy | 11 | 7 | 1 | 1 (1) | 2 (1 – 13) | - |
| Central Nervous System | 6 | - | 1 | 1 (7) | 4 (6 – 34) | - |
| Haematological | 6 | - | - | 3 (1 – 3) | 2 (45 – 48) | 1 |
| Gastrointestinal | 6 | - | 1 | 3 (1 – 18) | 2 (6 – 11) | - |
| Social/psychological | 5 | 1 | - | 3 (2) | 1 (1) | - |
| Peripheral Nervous System | 5 | - | 3 | 1 (7) | 1 (6) | - |
| Renal | 3 | 1 | - | - | 2 (1 – 8) | - |
| Unnecessary donation/burden | 3 | 1 (work up) | 2 | - | - | - |
| Product quality issue | 2 | 1 | - | 1 (6) | - | - |
| Pulmonary | 2 | 1 | - | - | 1 (2) | - |
| Other* | 29 | 5 | 4 | 13 (1 – 18) | 7 (1 – 42) | - |
| Total | 128 | 22 | 17 | 46 | 42 | 1 |

*Other incidents include 6 pain at collection site, 3 death of unknown cause, 2 falls, 2 back pain, 1 acute rotatory vertigo, 1 arthralgia, 1 fatigue fracture of fibula, 1 gout, 1 headache/dyspnoea, 1 hypocalcaemia, 1 hypogonadotropic hypogonadism, 1 lymphadenopathy, 1 non-malignant neoplasm, 1 pleomorphic adenoma, 1 pupillotonia/anisocoria, 1 severe menopausal complaints, 1 skeletal pain, 1 temporal meningioma, 1 traumatic hematoma and 1 toxic reaction during mobilisation.

### 2.2 Assessment of imputability

The committee assessed each incident reported for causation. This service is designed to be advisory to the reporting registry.

| Reported imputability | n | Assessed imputability | n | Imputability changed | n |
|---|---|---|---|---|---|
| Definite | 33 | Definite | 31 | Agreed | 241 |
| Probable | 39 | Probable | 26 | Upgraded* | 21 |
| Possible | 46 | Possible | 38 | Downgraded^ | 19 |
| Unlikely | 182 | Unlikely | 173 | To excluded | 31 |
| Excluded | 14 | Excluded | 43 | To not assessable | 1 |
| Not assessable | 9 | Not assessable | 2 | Not a sear | 10 |
| | | Not a SEAR | 10 | | |

*e.g. unlikely to definite or possible to probable. ^e.g. definite to probable or probable to possible.

**2.3 Incidents considered not a SEAR**

| Type | n | Why? | Report in the future? |
|---|---|---|---|
| Cytogenetic abnormality | 3 | No defined harm, and cannot be avoided | Report only if there is harm to the recipient |
| Infection | 2 | 1 herpes simplex on lip after donation, not "severe" by any definition | No |
| | | 1 Dengue fever diagnosed on d3 GCSF, mobilisation aborted – not caused by donation | Yes, educational (consider Dengue if fever during GCSF) |
| Osteophyte | 1 | No plausible medical connection | Yes, educational (accepted nevertheless as invalidity and refunded!) |
| Labelling error | 1 | Not severe / no harm | Yes (new reporting system as Risk of Harm) |
| Thrombocytopenia | 1 | Not severe enough | Yes, educational (especially before – after) |
| Anaphylactic shock | 1 | No plausible medical connection 6 months after BM | No |
| Breast cancer | 1 | Did not donate due to newly diagnosed breast cancer | No |

## 3 Harm to recipient

Twelve (12) harm to recipient incidents were reported. After evaluation 1 incident was considered as 'not a SEAR', this one will be discussed under a separate header.

Five (5) incidents followed after HPC-Marrow transplant, 3 after HPC-Apheresis transplant, 2 after HPC-Cord transplant and 1 after MNC-Apheresis transplant. Two (2) harm to recipient incidents occurred in 30 days or more after donation and 9 occurred within 30 days after donation.

### 3.1 The following type of incidents were reported

| | |
|---|---|
| Infusion related non-specific symptoms | 5 |
| Cytogenetic abnormality | 2 |
| Cardiovascular | 1 |
| Death | 1 |
| Product quality issue | 1 |
| Vascular | 1 |

### 3.2 Assessment of imputability

The committee assessed each incident reported for causation. This service is designed to be advisory to the reporting registry.

| Reported imputability | n | Assessed imputability | n | Imputability changed | n |
|---|---|---|---|---|---|
| Definite | 2 | Definite | 4 | Agreed | 7 |
| Probable | 1 | Probable | 0 | Upgraded* | 2 |
| Possible | 7 | Possible | 5 | Downgraded^ | 0 |
| Unlikely | 0 | Unlikely | 0 | To excluded | 0 |
| Excluded | 0 | Excluded | 0 | To not assessable | 2 |
| Not assessable | 2 | Not assessable | 2 | Not a SEAR | 1 |
| | | Not a SEAR | 1 | | |

*e.g. unlikely to definite or possible to probable. ^e.g. definite to probable or probable to possible.

### 3.3 Incidents considered not a SEAR

| Type | n | Why? | Report in the future? |
|---|---|---|---|
| Engraftment failure in 5 transplants | 1 | No pattern why 5 patients after CBU did not engraft, not assessable if something went “wrong” | Yes, cluster |

## 4. Risk of harm

Thirty-two (32) risk of harm incidents were reported. After evaluation 11 incidents were considered as 'not a SEAR', these will be discussed under a separate header.

Eight (8) incidents were concerning a HPC-Marrow donation, 3 concerning a HPC-Apheresis donation and 10 concerning a HPC-Cord product. Twenty (20) risk of harm incidents occurred before infusion and 1 was UNK.

### 4.1 The following type of incidents were reported

| | |
|---|---|
| **4.1.1 Product quality issues** | **14** |
| Low cell count | 3 |
| Product bacterially contaminated | 3 |
| Coagulated product | 2 |
| Air bubble in bag | 1 |
| Alfa-thalassemia minor undetected | 1 |
| Bag leak | 1 |
| Discrepant CT typing | 1 |
| Low viability | 1 |
| Labelling error | 1 |

| | |
|---|---|
| **4.1.2 Transport issues** | **7** |
| Product arrived thawed | 3 |
| Product X-rayed | 1 |
| Damaged bag | 1 |
| No temperature registration | 1 |
| Sent to wrong address | 1 |

### 4.2 Assessment of imputability

The committee assessed each incident reported for causation. This service is designed to be advisory to the reporting registry.

| Reported imputability | n | Assessed imputability | n | Imputability changed | n |
|---|---|---|---|---|---|
| Definite | 6 | Definite | 5 | Agreed | 12 |
| Probable | 3 | Probable | 1 | Upgraded* | 4 |
| Possible | 0 | Possible | 0 | Downgraded^ | 0 |
| Unlikely | 1 | Unlikely | 0 | To excluded | 4 |
| Excluded | 1 | Excluded | 4 | To not assessable | 1 |
| Not assessable | 21 | Not assessable | 11 | Not a SEAR | 11 |
| | | Not a SEAR | 11 | | |

*e.g. unlikely to definite or possible to probable. ^e.g. definite to probable or probable to possible.

**4.3 Incidents considered not a SEAR**

| Type | n | Why? | Report in the future? |
|---|---|---|---|
| Product quality issue | 6 | | |
| - Low cell count | 2 | 1 poor mobilizer | No, "happens" |
| | | 1 not possible to achieve the full requested dose but 3/5 of it; engrafted | No |
| - Labelling error | 1 | Not severe | Yes (new reporting system as Risk of Harm) |
| - Wrong papers accompanying product | 1 | Not severe | Yes (new reporting system as Risk of Harm) |
| - Product bacterially contaminated | 1 | Not severe | Only if harm to recipient |
| - Donor diagnosed with A gammaglobulinemia | 1 | Pre-malignancy per definition not a SEAR | No |
| Transport issues | 2 | | |
| - Sent to wrong address | 1 | Not severe | Yes (new reporting system as Risk of Harm) |
| - Delay | 1 | Not severe | Yes (new reporting system as Risk of Harm) |
| Other | 3 | | |
| - Infection/death | 1 | Pat died due to infection before delivery (but after donation) | No, nothing went wrong or could be done different |
| - Cytogenetic abnormality | 1 | No defined harm, and cannot be avoided | Report only if there is harm to the recipient |
| - Transplant postponed | 1 | No sound reason, donation would have been possible with additional diagnostics | No |