

ISOLS Classification of Limb-Sparing Reconstruction's

President of ISOLS: Professor Ruggieri

- ✓ Committee Limb-sparing reconstruction classification
- ✓ Committee discussions winter 2013
- ✓ Chair: Doug Letson

Participants:

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Mary O'Connor

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Thomas Temple

Robert Grimer

Honorary member:

Eric Henderson

Concerns with the Henderson classification

Type 1 Soft-tissue Failures:

- ✓No distinction was made between joint instability, tendon or ligament rupture, and wound dehiscence.

Type 2 Aseptic Loosening:

- ✓Modified to include the allograft failure analogue, which would most likely be non-union at the graft-host junction.

Type 3 Structural Failures:

- ✓No distinction between fractures of the host bone or implant, both of which may occur, but reflect very different etiologies of failure

Type 4 Infections:

- ✓No provision made to identify early and late infections. Early infections were describes as with in a year. Late infections one year or more

Type 5 Tumor Progression:

- ✓No distinction between bone and soft tissue progression

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| Endoprosthesis | A – Instability/ rupture B – Dehiscence | A – Early aseptic loosening B – Late aseptic loosening | A – Prosthesis failure B – Bone fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression |
| Allograft | A – Instability/ rupture B – Dehiscence | A – Hypertrophic non-union B – Atrophic non-union | A – Fixation failure B – Allograft fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression |

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| | Type 1 | Type 2 | Type 3 | Type 4 | Type 5 | Type 6 |
| Endoprosthesis – Peds | A – Instability/rupture B – Dehiscence | A – Early aseptic loosening B – Late aseptic loosening | A – Prosthesis failure B – Bone fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression | A - Physeal arrest B - Hip dysplasia |
| Allograft – Peds | A – Instability/rupture B – Dehiscence | A – Hypertrophic non-union B – Atrophic non-union | A – Fixation failure B – Allograft fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression | A - Physeal arrest B - Hip dysplasia |

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| Endoprosthesis – Peds | A – Instability/rupture B – Dehiscence | A – Early aseptic loosening B – Late aseptic loosening | A – Prosthesis failure (lengthening mechanism) B – Bone fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression | A - Physeal arrest B - Hip dysplasia |
| Allograft – Peds | A – Instability/rupture B – Dehiscence | A – Hypertrophic non-union B – Atrophic non-union | A – Fixation failure B – Allograft fracture | A – Early infection B – Late infection | A – Bone tumor progression B – Soft tissue tumor progression | A - Physeal arrest B - Hip dysplasia |

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