**Supplemental Table 1:** List of Complications and Subsequent Treatment for ALIF and AxiaLIF Groups

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| **ALIF patients** |  |  |
| **Complication** | **Number** | **Revision** |
| Hardware failure (hardware loosening) | 1 | Removal of iliac bolts bilaterally |
| PJK (2 years post-op) | 1 | Extension of posterior instrumentation |
| Hardware failure (Anterior displacement of L4-L5 screws) | 1 | Reinstrumentation |
| Radiculopathy (Medialization of right L4 pedicle screw), (6wk post-op) | 1 | Removal of right-side L4 pedicle screws |
| Misplaced Screw (fracture of L5 along and malposition lateral screw at L5), | 1 | Reinstrumentation |

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| **AxiaLIF patients** |  |  |
| **Complication** | **Number** | **Revision** |
| Cerebellar Hemorrhage and obstructive hydrocephalus | 1 | Craniotomy/Evac. of Hematoma |
| Hardware Failure( hardware migration and L4 fracture) | 1 | Posterior Re-instrumentation |
| Hardware Prominence | 1 | Removal of Left T12 Screw & Posterior Fusion |
| Heterotrophic ossification | 1 | Laminoforaminotomy |
| Misplaced Screws | 3 | Removal of hardware and re-instrumentation |
| Osteomyelitis (Adjacent Segment) | 1 | Reinstrumentation & Fusion |
| PJK  | 2 | Extension of previous fusion |
| Pseudarthrosis (L5-S1) | 5 | ALIF and re-instrumentation |
| Pseudarthrosis (L4-L5) | 1 | ALIF and re-instrumentation |
| Radiculopathy (Foraminal Stenosis) | 1 | Microdecompression |
| Wound Dehiscence | 2 | Debridement and closure |
| Wound Infection | 2 | Debridement and closure |
| Quadriceps palsy | 2 | None/ Recovered in 6 months |