**Table S1. Risk of Bias Assessment of Included Long Term RCTs of Thiazolidinediones in Type 2 Diabetes. a**

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| **Source** | **Sequence generation** | **Allocation Concealment** | **Monitoring of Adverse Events** | **Classification of Pneumonia or Lower Respiratory Tract Infection Adverse Events or Serious Adverse Events** | **Drug ( No of Subjects)** | **Losses (%)** |
| **Withdrawal** **Rates** | **Loss to Follow****up** |
| Rosiglitazone |
| Kahn et al, 2006 17-18 | Adequate | Adequate | AEs evaluated at study visit. Patients reported number of emergency room visits and hospitalizations, and any days where their activity had been restricted. | Pneumonia or LRTI as SAEs | Rosiglitazone (1456) | 558(40.1) | 64(4.6) |
| Sulfonylurea(1441) | 567(42.4) | 69(5.2) |
| Metformin(1454) | 545(39.0) | 75(5.4) |
| Gerstein et al, 2010 19-20 | Adequate | Adequate | AE and SAEs emerged at any time on or after dose of medication until 1 day after stopping medication | Pneumonia as SAE | Rosiglitazone(331) | 72(21.8) | 6(1.8) |
| Glipizide(337) | 72(21.4) | 10(2.9) |
| GSK 049653/ 020, 2004, 21 | Unclear | Unclear | On-therapy events were events starting on or after the start date of study medication and on or before the last date of medications | Pneumonia as SAE | Rosiglitazone 4 mg (200) | 47 (23.5) | NA |
| Rosiglitazone 8 mg (191) | 33(17.3) | NA |
| Glibenclamide(207) | 34(16.4) | NA |
| Dargie et al,2007 22-23 | Adequate | Adequate | AEs reported on or after the start date of study medication and upto one day after the last date of coded study medication | Pneumonia as AE and SAE | Rosiglitazone(110) | 30 | NA |
| Placebo(114) | 32 | NA |
| Hedblad et al, 2007 24-25 | Adequate | Adequate | Adverse events, laboratory findings and vital signs closely monitored | Pneumonia as SAE | Rosiglitazone (278) | 62(22.3) | NA |
| Placebo(279) | 46(16.5) | NA |
| GSK 049653/ 35126 | Adequate | Adequate | Safety parameters were summarized for the study population who received one dose of medication | LRTI as AE | Rosiglitazone (28) | 4 (14) | NA |
| Placebo (29) | 1(3) | NA |
| GSKAVM 100264, 2006 27  | Adequate | Adequate | Safety parameters were summarized for the study population who received one dose of medication | LRTI as AE | Rosiglitazone (294) | 61(21) | NA |
| Sulfonylurea( 302) | 71(24) | NA |
| Home et al 2009, 6 | Adequate | Adequate | AEs and SAEs were obtained for participants while on dual or triple oral therapy, and SAEs thereafter | Pneumonia as SAE | Rosiglitazone (2220) | NA | 60 |
| Metformin or Sulfonylurea (2227) | NA | 67 |
| **Source** | **Sequence generation** | **Allocation Concealment** | **Monitoring of Adverse Events** | **Classification of Pneumonia or Lower Respiratory Tract Infection Adverse Events or Serious Adverse Events** | **Drug ( No of Subjects)** | **Losses (%)** |
| **Withdrawal** **Rates** | **Loss to Follow****up** |
| **Pioglitazone** |
| Dormandy et al, 112005 | Adequate | Adequate | Investigators collected AEs at every study visit. Trial records evaluated to ensure SAE events reported. Serious events checked against clinical notes. | Pneumonia as SAEs | Pioglitazone (2605) | 427 (16.39) | 2 |
| Placebo (2633) | 438 (16.63) | 2 |
| Schernthaner et al, 2004 29 b | Adequate | Adequate | All AEs reported by patients or recorded by investigators | LRTIs as AEs | Pioglitazone (282) | 26(9.2) | NA |
| Metformin(123) | 9 (2.8) | NA |
| Charbonel et al, 2005 30b | Unclear | Unclear | All AEs reported by patients or recorded by investigators | LRTIs as AEs | Pioglitazone (282) | 26(9.2) | NA |
| Sulfonylurea(142) | 10(7.0) | NA |
| Hanefield et al, 2004 31b | Unclear | Unclear | All AEs reported by patients or recorded by investigators | LRTIs as AEs | Pioglitazone (105) | 11 (10.5) |  |
| Metformin (107) | 12(11.2) | NA |
| Matthews et al, 2005 32b | Unclear | Unclear | AEs evaluated by BP, pulse rate and standard hematology and clinical chemistry laboratory safety tests, and a PE at baseline and Week 52. | LRTIs as AEs | Pioglitazone (63) | 3(4.8) | NA |
| Sulfonylurea (69 | 2 (2.9) | NA |

Abbreviations: AE= Adverse Events; SAE= Serious Adverse Events; NA= Not available

1. All trials were double-blind except RECORD which was open-label.
2. Data extracted from Rajagopalan et al, 200628 a pooled analysis of older patients from four RCTS 29-32

Abbreviations: AE= Adverse Events; SAE= Serious Adverse Events; NA= Not available

Serious Adverse Events