

# INPLASY PROTOCOL

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The authors have no conflicts  
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## The Prevalence and Incidence of community-acquired Pressure Injury: Protocol for a Systematic Review and meta-analysis

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**Review question / Objective:** To systematically assess the incidence and prevalence of community-acquired pressure injuries and the most frequently occurring pressure injury sites.

**Condition being studied:** Pressure injury (PI) is a serious problem in health care settings globally. It leads to tremendous burden both individuals and healthcare systems. Since 2008, hospital-acquired pressure injuries (HAPI) have been a major focus of nursing quality improvement programs within hospitals and are considered never events. However, insufficiency attention has been paid to community-acquired pressure injuries (CAPI) or pressure ulcers that occur at home or in nursing homes. The prevalence or incidence of community-acquired pressure injury has been reported but never been synthesized in a meta-analysis manner. To fill the gaps in the evidence matrix, the aims of this study are to estimate the prevalence of CAPI in the general population and to pool the overall incidence of CAPI in the general population.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 August 2020 and was last updated on 11 August 2020 (registration number INPLASY202080044).

### INTRODUCTION

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## METHODS

**Search strategy:** Seven electronic databases (PubMed, Web of Science, EMBASE, CINHAL, the Cochrane Library, Chongqing VIP and China National Knowledge Infrastructure) were systematically searched by the first author (CG) for all studies published from the earliest record to May 2, 2020 reporting the prevalence or incidence of community-acquired pressure injury among general population. The search terms were combinations of epidemiology (prevalence, incidence or epidemiology), PI (pressure injury or pressure ulcer) and community-acquired (community, home, nursing home, residence home, long-term care center or rehabilitation center) in forms of free words or controlled vocabulary (ie, medical subject headings). There were no time or language limitations.

**Participant or population:** General population.

**Intervention:** No.

**Comparator:** No.

**Study designs to be included:** Observational studies: cohort, case control, and cross-sectional study.

**Eligibility criteria:** Inclusion criteria are as follows: (a) observational studies: cohort, case control, and cross-sectional study; (b)

PI diagnostic criteria according to NPUAP and there is no limit to the stage of PIs; (c) Pressure injuries should occur in non-hospital settings such as communities, nursing homes et al.

**Information sources:** Electronic databases, contact with authors.

**Main outcome(s):** The prevalence or incidence of community-acquired pressure injury.

**Quality assessment / Risk of bias analysis:** The assessment included five modules, namely, sample population, sample size, participation rate, outcome assessment, and analytical methods. Each module was graded as with high risk and unclear (score 0), moderate risk (score 1) or low risk (score 2) (see Table 2). The overall bias risk of each study was represented by the total score of the five modules. All disagreements in the review stage and data extraction process were resolved by consensus through discussion.

**Strategy of data synthesis:** Before pooling prevalence estimates of CAPI, we first assessed the heterogeneity among studies using the Cochran's Q statistic and I<sup>2</sup> index (the proportion of total variability due to true between-study heterogeneity beyond chance). A random-effects meta-analysis was employed a priority throughout this study because of inherent variations between study characteristics (eg, investigated sample, study design and study location). All statistical analyses were conducted with STATA version 12.0. A P-value of less than 0.05 indicated statistical significance.

**Subgroup analysis:** The subgroup analysis was performed to investigate the possible sources of heterogeneity according to the stage of PIs, different regions and different setting.

**Sensibility analysis:** The influence of a single study was checked by a leave-one-out sensitivity analysis.

**Country(ies) involved:** China.

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**Keywords:** prevalence; incidence; Community-acquired pressure injury; meta-analysis

**Contributions of each author:**

**Author 1 - Chen Geng -** Author 1 drafted the manuscript.

**Author 2 - Lin Lv -** The author provided statistical expertise.

**Author 3 - Yanlin Yang -** The author contributed to the development of the selection criteria, and the risk of bias assessment strategy.

**Author 4 - Chung Loretta Yuet-Foon -** The author read, provided feedback and approved the final manuscript.

**Author 5 - Lin Han -** The author read, provided feedback and approved the final manuscript.