

Supplementary Table 4. Aggregation of the detailed NOS score of included studies

Study/collection period	Definition of DLE and non-DLE	Representativeness of the cases	Selection of controls	Definition of controls	Comparability on the basis of the design	Ascertainment of exposure	Same method of ascertainment for cases and controls	Non-response rate
Meng (2010) [1]/ 2006.5–2006.10	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Wang (2012) [2]/ 2010.10–2011.12	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Sun (2015) [3]/ 2012.5–2013.5	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Wang (2015) [4]/ 2013.1–2015.3	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Huang (2016) [5]/ 2013.10–2015.9	Adequate and refer to Hsiung, 2004 with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Ma (2016) [6]/ 2013.10–2015.8	Adequate and refer to Piazza, 2014 with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Pual (2016) [7]/ 2007.8–2009.7	A defined grading system with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Jin (2016) [8]/ 2013.5–2014.12	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Li (2017) [9]/ 2014.10–2015.5	Adequate and refer to Roh, 2005 with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Pinar (2009) [10]/ 2005.1–2006.10	A defined grading system with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★

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Supplementary Table 4. Continued

Study/collection period	Definition of DLE and non-DLE	Representativeness of the cases	Selection of controls	Definition of controls	Comparability on the basis of the design	Ascertainment of exposure	Same method of ascertainment for cases and controls	Non-response rate
Liu (2021) [11]/ 2020.1–2021.1	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Liu (2022) [12]/ 2019.4–2020.10	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Chen (2019) [13]/ 2016.1–2017.5	Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Retrospective surveys and records not blinded to case/control status	Same rate for both groups ★
Cheng (2020) [14]/ 2017.5–2018.10	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Hsiung (2004) [15]/ 2002.1–2002.9	A defined grading system with independent validation ★	Unrepresentative sample with defined period of time, area, group of hospitals	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure with confounders like type of disease ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Wei (2018) [16]/ 2016.9–2017.9	Adequate and based on Cormack-Lehane scoring with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Wang (2021) [17]/ 2016.10–2019.6	Adequate and based on Cormack-Lehane scoring with independent validation ★	Unrepresentative sample with defined period of time, area, group of hospitals	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure with confounders like type of disease ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★
Kharrat (2022) [18]/ 2021.1–2021.11	A defined grading system with independent validation ★	Random sample with defined period of time, area, group of hospitals ★	Hospital controls	First occurrence of outcome both in cases and controls ★	Study control for laryngeal exposure without any additional factors ★	Secure records of physical examination ★	Secure records where blind to case/control status ★	Same rate for both groups ★

NOS, Newcastle-Ottawa Scale.

★ Represents one point earned in the NOS star rating system.