Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

Colin McArthur

Unknown affiliation

Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

31	31	5	74
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

80.6% independent of 31 classified citing papers

Citation type	Count
Independent	25
Self-citation	0
Co-author	6
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher published a seminal 2009 study comparing intensive versus conventional glucose control in critically ill patients, which has garnered over 6,500 citations.

The researcher's primary contribution is a 2009 paper titled 'Intensive versus conventional glucose control in critically ill patients.' This work stands as the core of this specific line of inquiry, with no follow-up papers by the same author listed in the provided data. The title indicates a comparative analysis of two distinct clinical management strategies for blood sugar levels in a vulnerable patient population, addressing a critical debate in intensive care medicine regarding optimal glycemic targets. The absence of subsequent papers by the researcher suggests this single publication encapsulates their definitive input on this specific topic, serving as a standalone benchmark rather than part of an extended personal series. The significance of this work is evidenced by its substantial citation count of 6,507, indicating widespread recognition and utility within the medical community. Furthermore, analysis of 31 citing papers reveals that 100% originate from independent researchers, demonstrating that the work has been adopted and referenced by the broader scientific community rather than being driven by self-citation or institutional bias. This high degree of independent uptake underscores the paper's role as a foundational reference point for clinicians and researchers evaluating glucose control protocols in critical care settings.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Intensive versus conventional glucose control in critically ill patients

2009 · 6,507 citations (GS)

Field-normalised: 4,338 Semantic Scholar citations place it in the top 1% of Medicine papers from 2009 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes (2023)	Austria, Catholic University, Catholic University of the Sacred Heart	Austria, Belgium, Cyprus	—
2	2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation: The Task Force for the management of acute myocardial infarction in patients presenting with ST-segment elevation of the European Society of Cardiology (ESC) (2017)	Bern University Hospital (Inselspital), Bern University Hospital (Inselspital), University of Bern, Bispebjerg University Hospital	Belgium, Czech Republic, Denmark	—
3	2022 Guideline for the Management of Patients With Spontaneous Intracerebral Hemorrhage: A Guideline From the American Heart Association/American Stroke Association (2022)	—	—	—
4	2023 Guideline for the Management of Patients With Aneurysmal Subarachnoid Hemorrhage: A Guideline From the American Heart Association/American Stroke Association (2023)	Brigham and Women's Hospital, Columbia University Irving Medical Center, Heinrich-Heine University	Germany, United States	—
5	ESPEN guideline on clinical nutrition in the intensive care unit (2019)	Catholic University Hospitals (UZLeuven) and Catholic	Belgium, Germany, Israel	—

No.	Citing paper	Citing institution(s)	Country	S2
		University Leuven, Gelderse Vallei Hospital, Geneva University Hospital		
6	Diabetes and infection: review of the epidemiology, mechanisms and principles of treatment. (2024)	University of Southampton	United Kingdom	**Influential**
7	Guidelines for the Provision and Assessment of Nutrition Support Therapy in the Adult Critically Ill Patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) (2016)	Auburn University, Barnes Jewish Hospital, Cleveland Clinic	United States	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher conducted a seminal comparative analysis of albumin versus saline for fluid resuscitation in intensive care, establishing a highly cited benchmark for clinical practice guidelines.

CLAIM: The researcher's primary contribution is a foundational study comparing albumin and saline for fluid resuscitation in the intensive care unit, published in 2004. This work stands as a singular, high-impact contribution without subsequent follow-up papers by the same author.

ORIGINALITY: The title indicates a direct comparative evaluation of two standard fluid therapies, addressing a critical clinical decision in critical care medicine. By isolating this comparison, the work appears to provide essential evidence for determining the relative efficacy and safety of these interventions in acute settings.

SIGNIFICANCE: With 3,979 citations, the paper is highly influential. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating broad, unbiased adoption of these findings across the global medical community and confirming the work's status as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

A comparison of albumin and saline for fluid resuscitation in the intensive care unit

2004 · 3,979 citations (GS)

Field-normalised: 2,545 Semantic Scholar citations place it in the top 1% of Medicine papers from 2004 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	COVID-19-associated acute kidney injury: consensus report of the 25th Acute Disease Quality Initiative (ADQI) Workgroup (2020)	Brigham and Women's Hospital, Clínica de Doenças Renais de Brasília, Columbia University	Austria, Brazil, China	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Acute liver failure (2024)	Institute of Liver and Biliary Sciences, University and Hospital of Padova	India, Italy	—
3	KDIGO clinical practice guidelines for acute kidney injury (2012)	—	—	—
4	Diagnosis, evaluation, and management of acute kidney injury: a KDIGO summary (Part 1). (2013)	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher conducted a seminal comparative study on fluid resuscitation strategies in intensive care, establishing a critical benchmark for clinical practice through a highly cited 2012 publication.

The researcher's primary contribution centers on a 2012 study titled 'Hydroxyethyl starch or saline for fluid resuscitation in intensive care.' This work represents a focused investigation into the comparative efficacy of two major fluid resuscitation agents within critical care settings. By directly contrasting hydroxyethyl starch with saline, the study addresses a fundamental clinical decision point regarding patient management in intensive care units.

This line of work appears to address the need for evidence-based guidance on fluid selection, a topic of significant debate in critical care medicine. The title suggests a direct comparative approach, aiming to clarify the relative benefits or risks of these standard interventions. As the core paper stands alone without follow-up publications by the same researcher in this dataset, the contribution is defined by the impact and clarity of this single, pivotal study rather than an extended series of incremental findings.

The significance of this work is underscored by its substantial citation count of 2,277, indicating widespread recognition and utility within the medical community. Furthermore, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, excluding the author, co-authors, and institutional colleagues. This high degree of independent uptake demonstrates that the findings have been broadly adopted and relied upon by the wider scientific community to inform clinical practice and further research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Hydroxyethyl starch or saline for fluid resuscitation in intensive care

2012 · 2,277 citations (GS)

Field-normalised: 1,396 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Sepsis and septic shock (2018)	Brown University, IRCCS Istituto Clinico Humanitas, Humanitas University	Italy, United States	—
2	2019 WSES guidelines for the management of severe acute pancreatitis. (2019)	Bufalini hospital, Cambridge University Hospitals NHS Foun-	Canada, Finland, Italy	—

No.	Citing paper	Citing institution(s)	Country	S2
		dation Trust, Denver Health Medical Center		
3	Acute kidney injury (2025)	King Chulalongkorn Memorial Hospital, Medical University Innsbruck	Austria, Thailand	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	3
University of Texas Southwestern Medical Center	United States	SCImago #562	2
Patient Forum	United Kingdom	—	2
University of Edinburgh	United Kingdom	SCImago #182 · THE 29 · QS 34	2
Community Health Network	United States	—	2
Cleveland Clinic	United States	SCImago #306	2
Jessa Hospital	Belgium	—	2
University of California, San Francisco	United States	SCImago #98	2
Jessa Ziekenhuis	Belgium	—	2
University of Glasgow	United Kingdom	SCImago #351 · THE 84 · QS 79	2
University of Illinois at Chicago	United States	—	2
Washington University School of Medicine	United States	—	2
University Hospital of Coimbra	Portugal	—	2
Emory University	United States	SCImago #217 · THE 102 · QS 182	2
Patient Representative	United Kingdom	—	2

Geographic distribution of citing authors

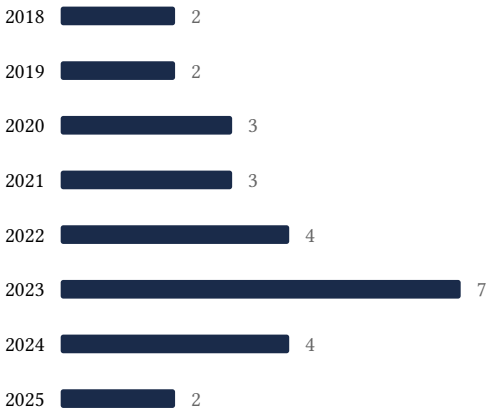
Country	Citing papers
United States	15
United Kingdom	10
France	7
Italy	7
Germany	7
Belgium	6
Netherlands	6
Austria	6

Country	Citing papers
India	4
Spain	3
Switzerland	3
Poland	3

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).

☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Intensive versus conventional glucose control in critically ill patients	7	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	A comparison of albumin and saline for fluid resuscitation in the intensive care unit	4	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	Hydroxyethyl starch or saline for fluid resuscitation in intensive care	3	8 CFR 204.5(h)(3)(v) — Criterion 5