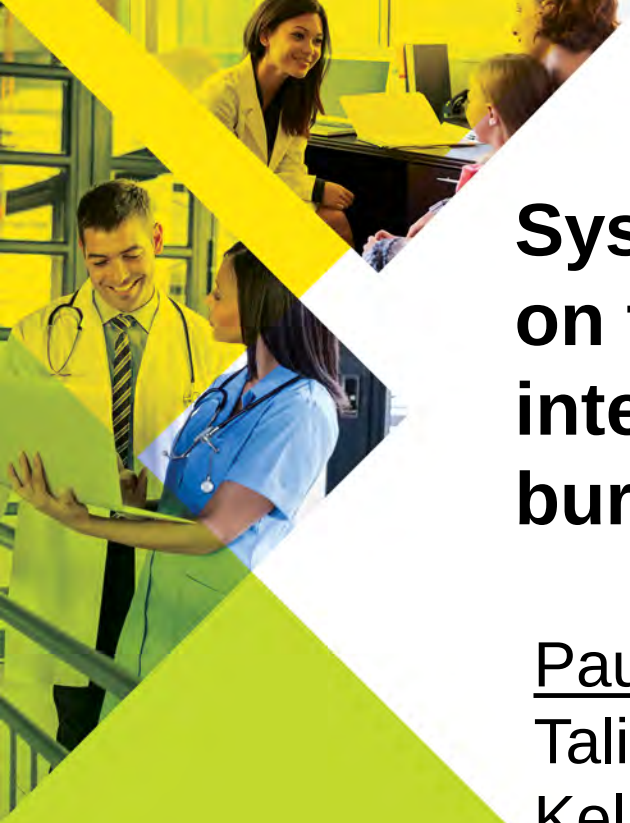

Systematic literature review on the effect of workplace interventions on physician burnout

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Physician burnout is a global public health crisis

Highly prevalent worldwide

up to **50%**
of physicians report at least one symptom of burnout

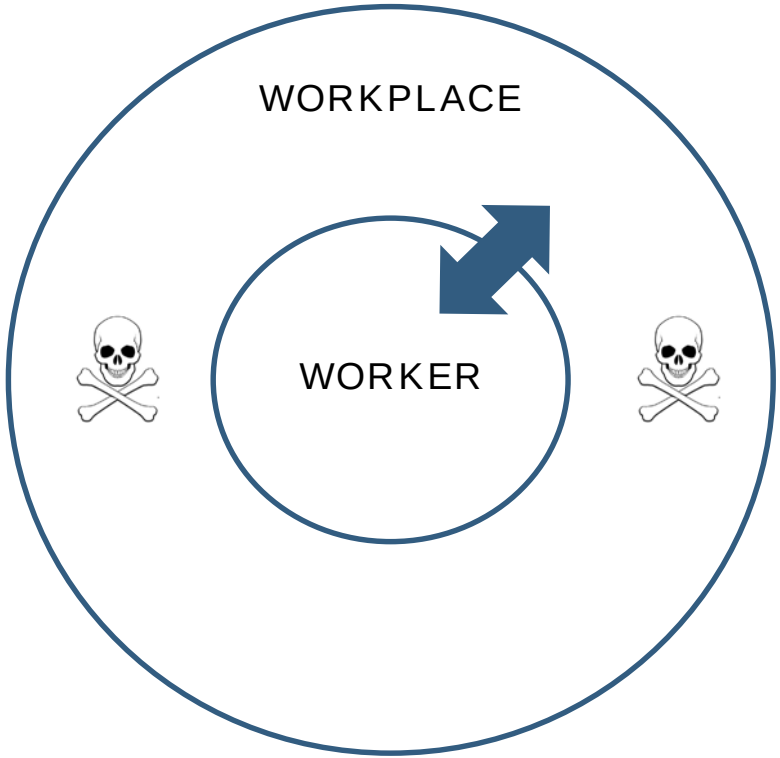
Has significant consequences

- Reduced **patient safety**
- Reduced **quality of care**
- Increased **healthcare costs**
- Reduced **physician retention**

Driven by system-generated changes

- Increased **clerical duties**
- Accountability for **inconsistent quality metrics**
- Organizational changes including **new payment and delivery approaches, electronic health records (EHR), and patient portals**

Why does burnout happen?



Burnout is the result of an interaction between:

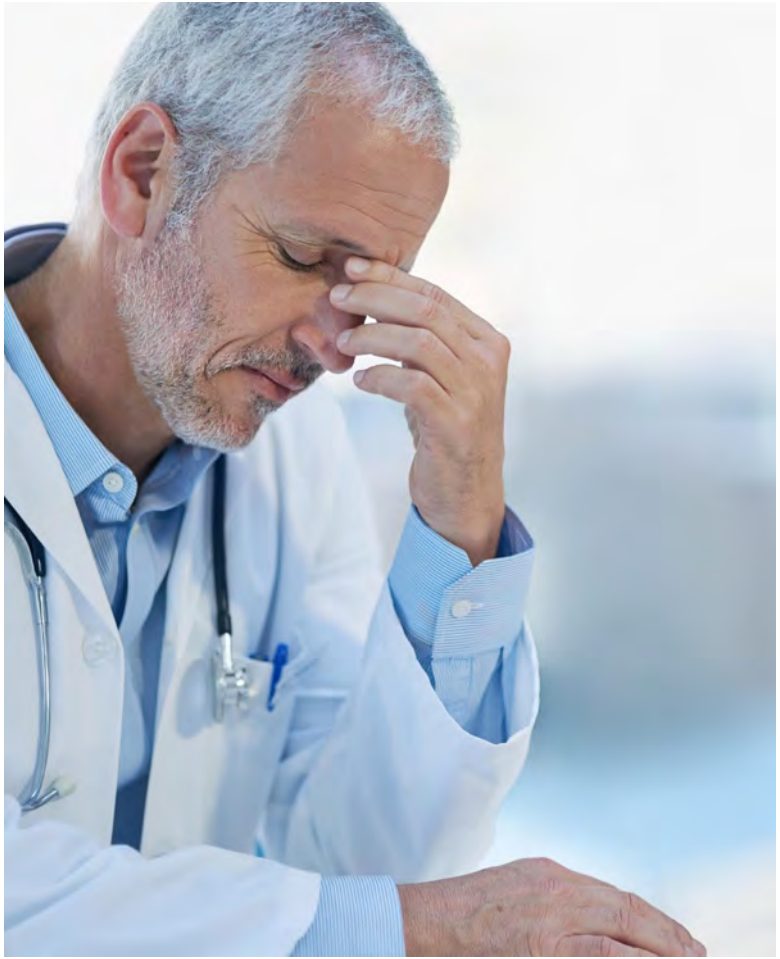
- the worker
- the workplace

Highly motivated professionals in a ***dysfunctional workplace*** are unable to succeed without ***constant vigilance and focus***

Unsustainable => Toxicity

The six workplace drivers of burnout:

1. Work Overload:
   - Chaotic work environment
   - Time Pressure
   - Information Overload
2. Loss of control
3. Insufficient reward
4. Breakdown of community
5. Absence of fairness
6. Conflicting values



Maslach, C., & Leiter, M. P. (1997). The truth about burnout: How organizations cause personal stress and what to do about it. San Francisco, CA: Jossey-Bass

Linking drivers of burnout to the manifestations[1]

Work Overload
- Chaotic work environment
- Time Pressure
- Information Overload

Linked to **Emotional Exhaustion**

Loss of control

Insufficient reward

Breakdown of community

Absence of fairness

Conflicting values

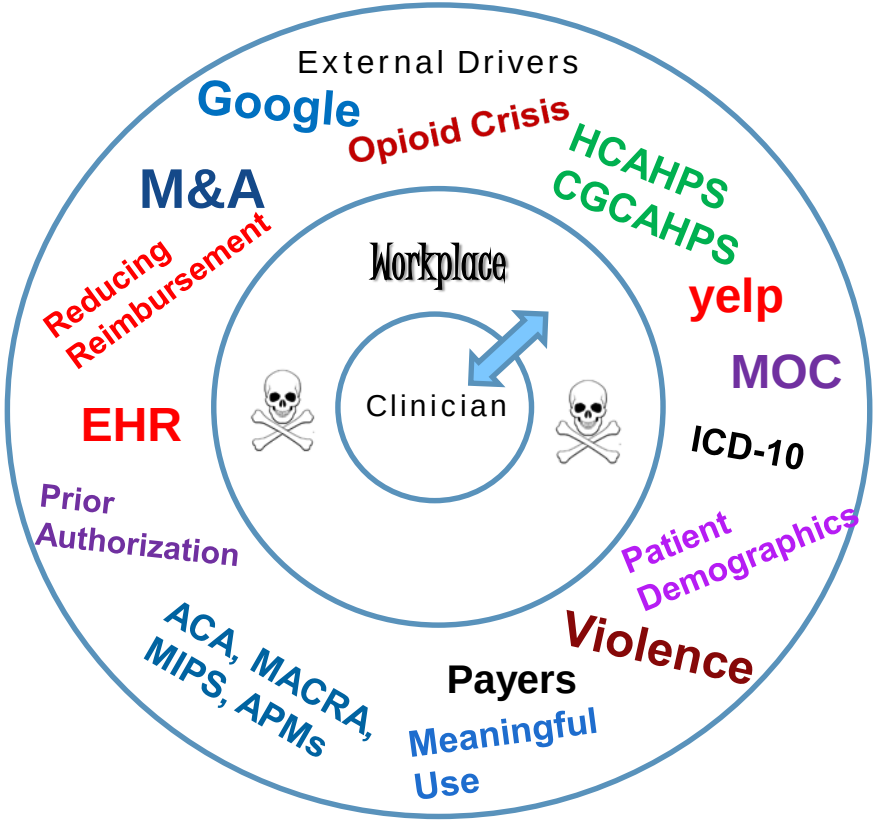
Linked to **Cynicism**

1. Personal communication with Christina Maslach, PhD

Who has the greatest impact on a physician’s level of burnout?

Their direct supervisor

How did this happen?



We have added the last straw…

…**and people are breaking!**

The impact of burnout on physicians and their families

Depression, Substance Abuse, Family Dysfunction, Suicide[1]

300 to 400

Physicians die each year due to **suicide**[1]

The suicide rate among **male** doctors is

40% HIGHER

than among men in the general population[1]

The suicide rate among **female** doctors is

130% HIGHER

than among women in the general population[1]

1. Schernhammer E. *NEJM* 2005

What should we do?

There is a critical need to understand how organizations can reduce physician burnout

Gaps in research

The ability of workplace or workflow interventions to minimize physician burnout has not been fully examined after its application in the United States and Europe.

Research objective

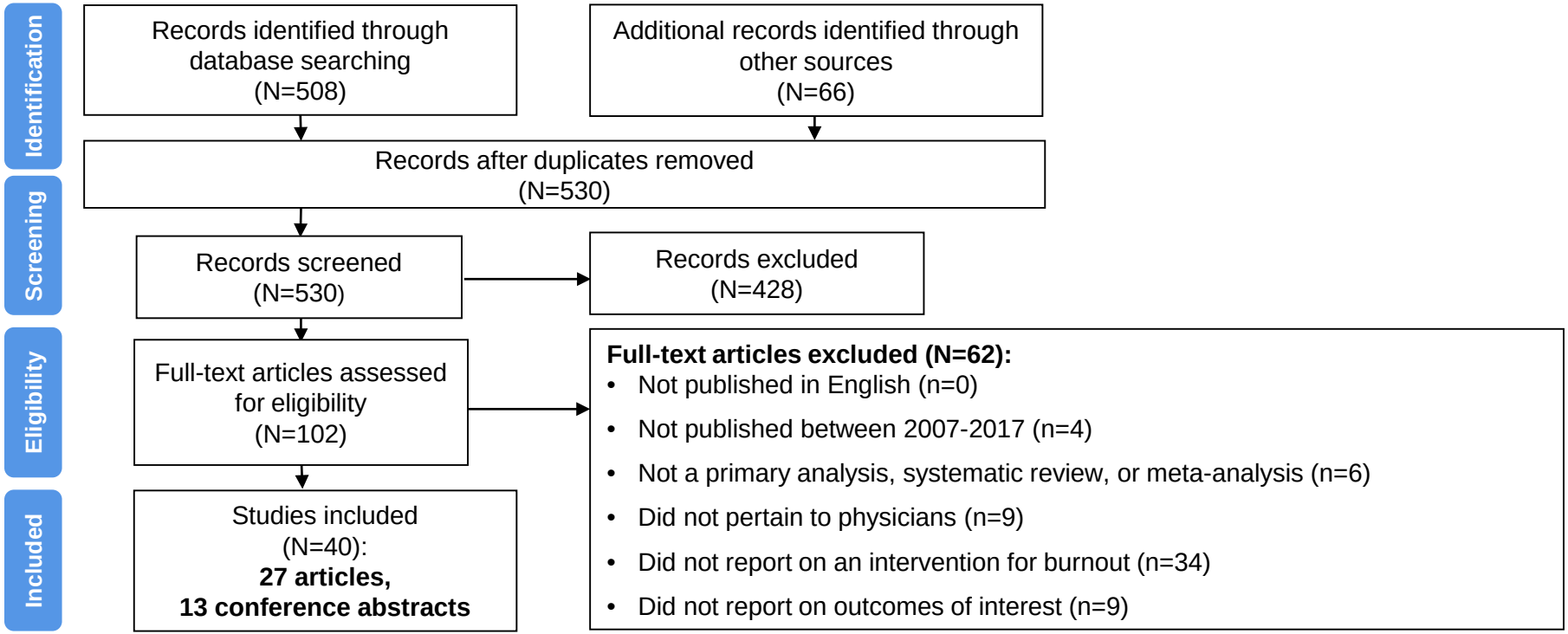
To **systematically review the effect of workplace interventions on physician burnout**, including any intervention for which burnout was assessed as an outcome.

A systematic review focused on the impact of workplace interventions on physician burnout was conducted

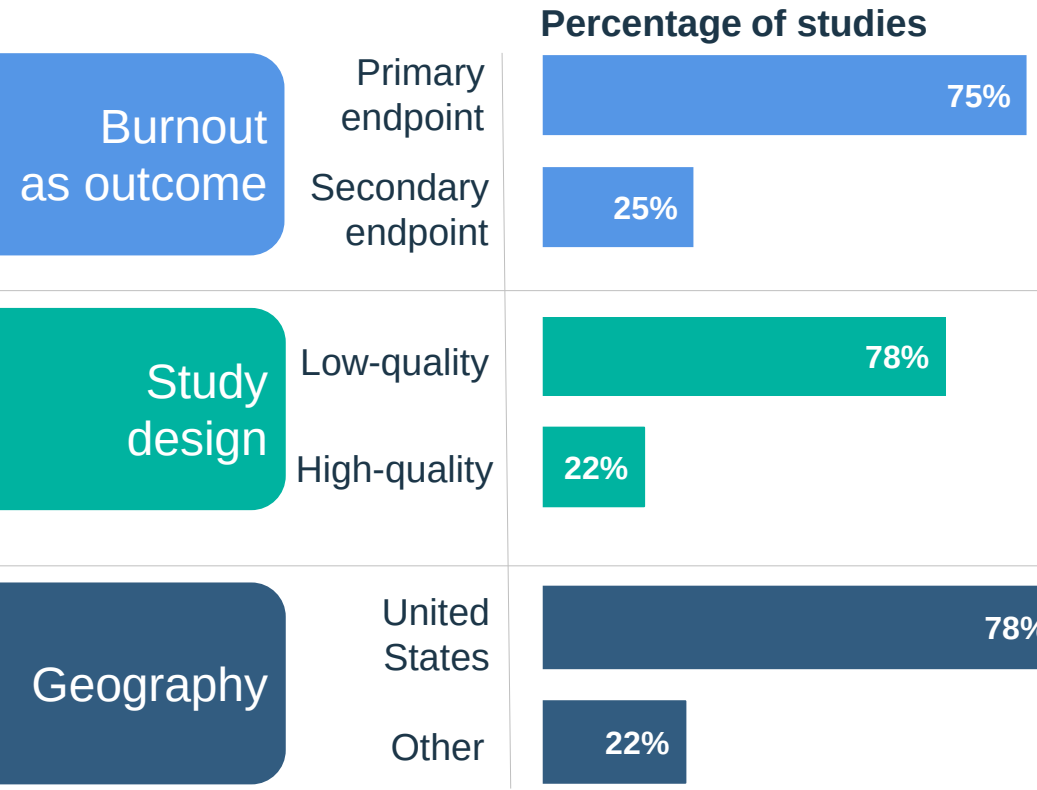
Study eligibility criteria

Population of interest	Physicians
Intervention	Workplace interventions
Outcome endpoints	• Physician burnout metrics • Other burnout indicators like stress, job satisfaction, etc.

A total of 40 articles and abstracts were identified



The majority of studies evaluated burnout as an outcome, had low quality study designs, and were conducted in the US



Key points

30 studies **measured physician burnout as primary endpoint**

- 10 studies were not designed to improve burnout, but **measured burnout indicators as an indirect outcome** of system changes

Very few high-quality studies were identified

- 31 studies were case series, post-test single arm, cross-sectional
- 9 studies were randomized controlled trials or cohort studies

Most studies (31) were from the US

- Other countries included Canada, Egypt, Italy, France, and the UK

Summary of results

Type of intervention	Number of studies	Description
Workflow changes	16	Redesign workflow, improve communication between providers, implement team-based care, or initiate quality improvements
Workload reduction or rescheduling	11	Limit working hours or modify work schedule
Electronic health records (EHR) modifications	7	Optimize EHR usability
Professional support or workplace policy changes	6	Leadership changes to promote physician well-being, time management, mentoring, and continuing education

The impact of reducing workload varied and in some cases increased physician burnout

	Examples of interventions	Impacts
Workload reduction or rescheduling	• **Limit working hours** through duty hour restriction policies • I**nterrupted schedules with weekend breaks** for critical care physicians • Provide **protected time for sleep**	• The reported benefits of limits on working hours are mixed • Work hour limits worsened burnout, so factors beyond working hours may be greater contributors to burnout

Improvement of EHR and surrounding processes have had a positive impact on physician burnout

Examples of interventions

Impacts

Electronic health records (EHR)

- **Decrease documentation effort** by reducing mouse clicks and keystrokes
- **Train physicians** to improve their efficiency in using EHR
- Provide **clerical support** for data entry

- Interventions aimed at optimizing the use of EHR, all lessened physician burnout

Workflow changes had a substantial and positive impact on physician burnout, job satisfaction, or stress

Workflow changes

Examples of interventions

- Implement **team-based care model** with enhanced roles for other providers
- **Improve communication** between providers
- **Quality improvement** by use of Lean and Lean Six Sigma methodology
- Incorporate **medical scribes** to support EHR documentation

Impacts

- Optimized workflow decreased stress, burnout, and emotional and physical exhaustion, and improved job satisfaction and peer collaboration
- Burnout more likely to improve when workflow changes were associated with quality improvement initiatives

Professional support opportunities cover a broad range of activities; some of which have demonstrated a positive impact on physician burnout

Professional support

Examples of interventions

- **Acknowledge** teaching, service and clinical activities with practical rewards
- Provide **time to learn and practice skills** in specialty, efficiency, teamwork, and self-care.
- Provide time for **facilitated physician discussion groups** for personal and professional development

Impacts

- Enhanced support provided increased well-being and job satisfaction with decreased burnout, emotional exhaustion, and depersonalization
- Fostering professional development through discussion groups and training alleviated burnout and enhanced the quality of care

Recommendations for future research

1 Identify effective workplace changes

- Streamline workflows based on quality improvement initiatives and team-based care models
- Provide leadership-driven professional support opportunities
- Refine the usability of electronic health records (EHR)
- Incorporate medical scribes to support EHR documentation

2 Identify how EHR can be optimized

- Identify successful and burdensome aspects of EHR
- Improve EHR technology

3 Encourage leadership-driven interventions

- Use metrics to capture burnout
- Correct workplace and workflow system issues
- Improve workplace culture
- Provide resilience training and support

The potential benefit of Artificial Intelligence (AI) = Augmented Intelligence

Understanding

Reads and understands data – both structured and unstructured – at a massive scale.

Reasoning

Searches millions of pages of data in seconds and can recognize context and interpret the language of health and medicine.

Learning

Learns from leading human experts and real world cases and continues to improve over time and experience.

Empowering

Previously “invisible” data and knowledge are delivered into actionable insights. Cognitive analytics and AI empowers humans and are transparent.

How can AI reduce burnout?

Reduce Chaos
– Foraging for patient data
– Identify Care Gaps

Reduce Information Overload
– Advice on Treatment Options

Regain Control
– Patient Specific Care Options

Regain Community
– Time for Colleagues and Family

Regain Purpose
– Focus on the Patient, not screens and keyboards

A five step approach to reduce burnout: not a “quick fix”

Step 1 – Diagnostic

Step 2 - Planning Session

Step 3 – Clinician Wellbeing Support

Step 4 – Management System and Culture Improvement

Step 5 – Practice Efficiency Improvement

2016 Physician Wellness Survey Report – Stanford University

What drives professional fulfillment?

Meaningful Patient Relationships

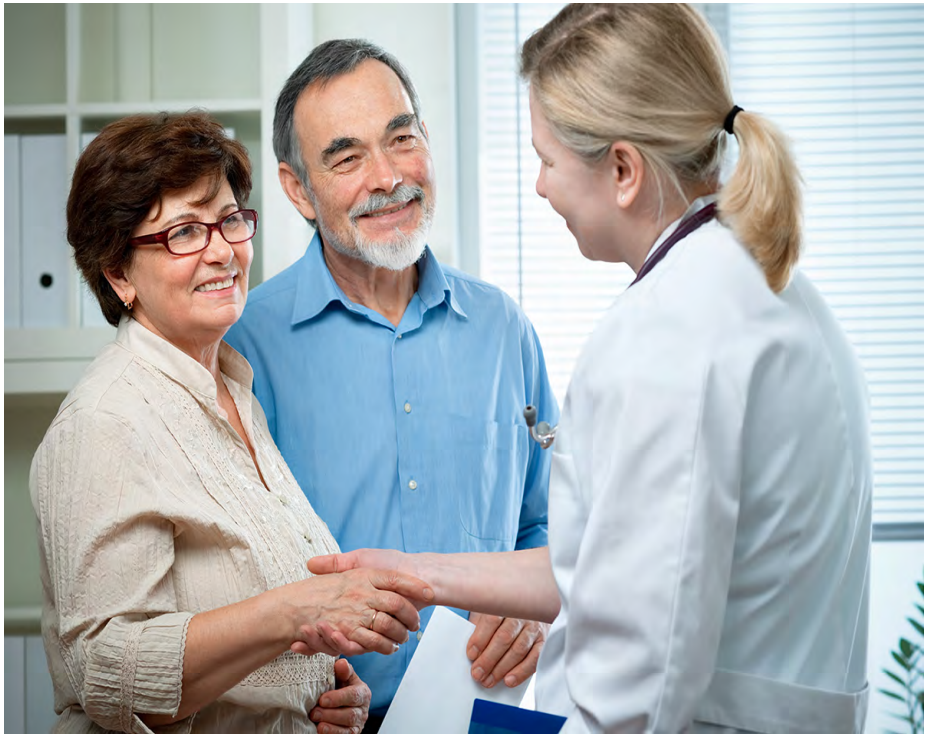
Opportunity to connect in a deep and personal way with many people,

They tell us things they tell no one else,

They allow us to examine parts of their bodies no one else can see or touch,

They trust us that we have their best interest as our priority, and

That we will do our best to heal them.



Discussion

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