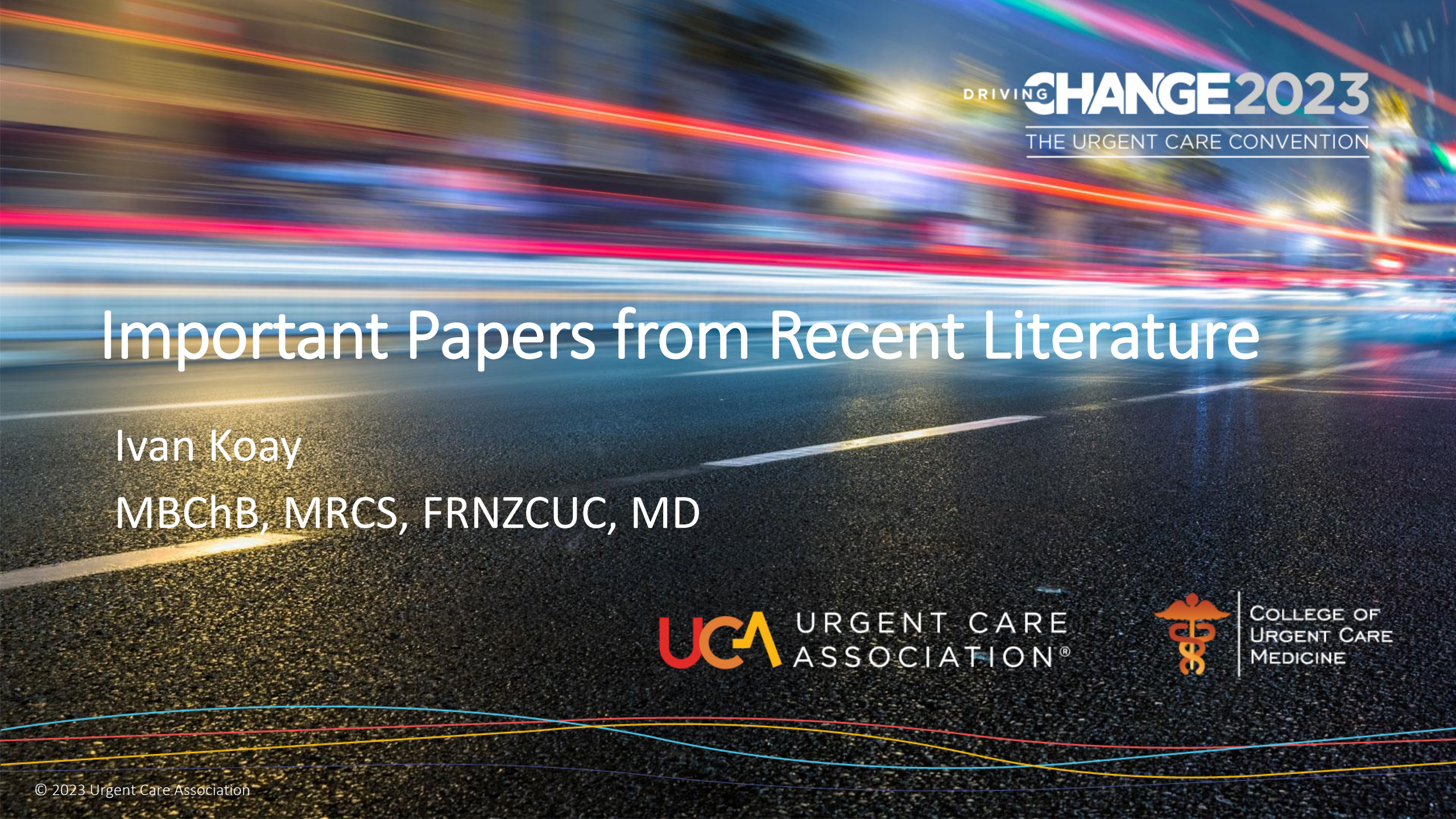

Important Papers from Recent Literature

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URGENT CARE ASSOCIATION®

COLLEGE OF URGENT CARE MEDICINE

About Me

DRIVING CHANGE 2023
THE URGENT CARE CONVENTION

- Studied and graduated from the UK
- A medical meanderer initially – Surgery and ED work – UK and then New Zealand
- Fell in love with UC in New Zealand – Fellowship from the Royal New Zealand College of Urgent Care (RNZCUC)
- Board certification in UC, in NZ
- Presently work in London, UK
- JUCM abstracts editor since Aug 2020
- Peer reviewer for the EBM in Urgent Care
- Convenor of the Irish/UK Faculty of the RNZCUC
- Evaluator of Healthcare Facilities and Physicians for the European Regional Network for Rare Metabolic and Non-Metabolic Diseases

Paper 1

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Immobilisation of torus fractures of the wrist in children (FORCE): a randomised controlled equivalence trial in the UK

Daniel C Perry, Juul Achten, Ruth Knight, Duncan Appelbe, Susan J Dutton, Melina Dritsaki, James M Mason, Damian T Roland, Shrouk Messahel, James Widnall, Matthew L Costa, for the FORCE Collaborators in collaboration with PERUKI

Lancet. 2022 Jul 2;400(10345):39-47

Why is it Important?

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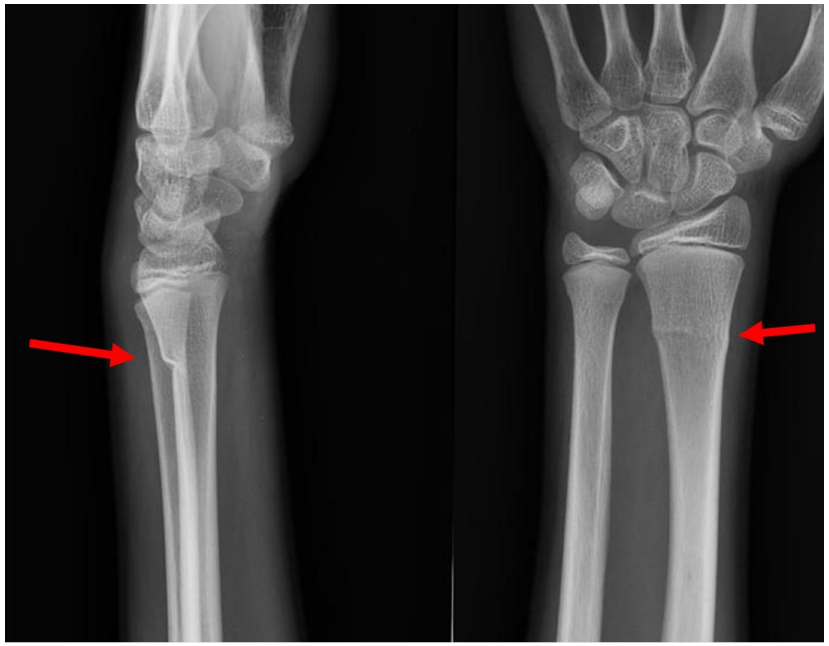
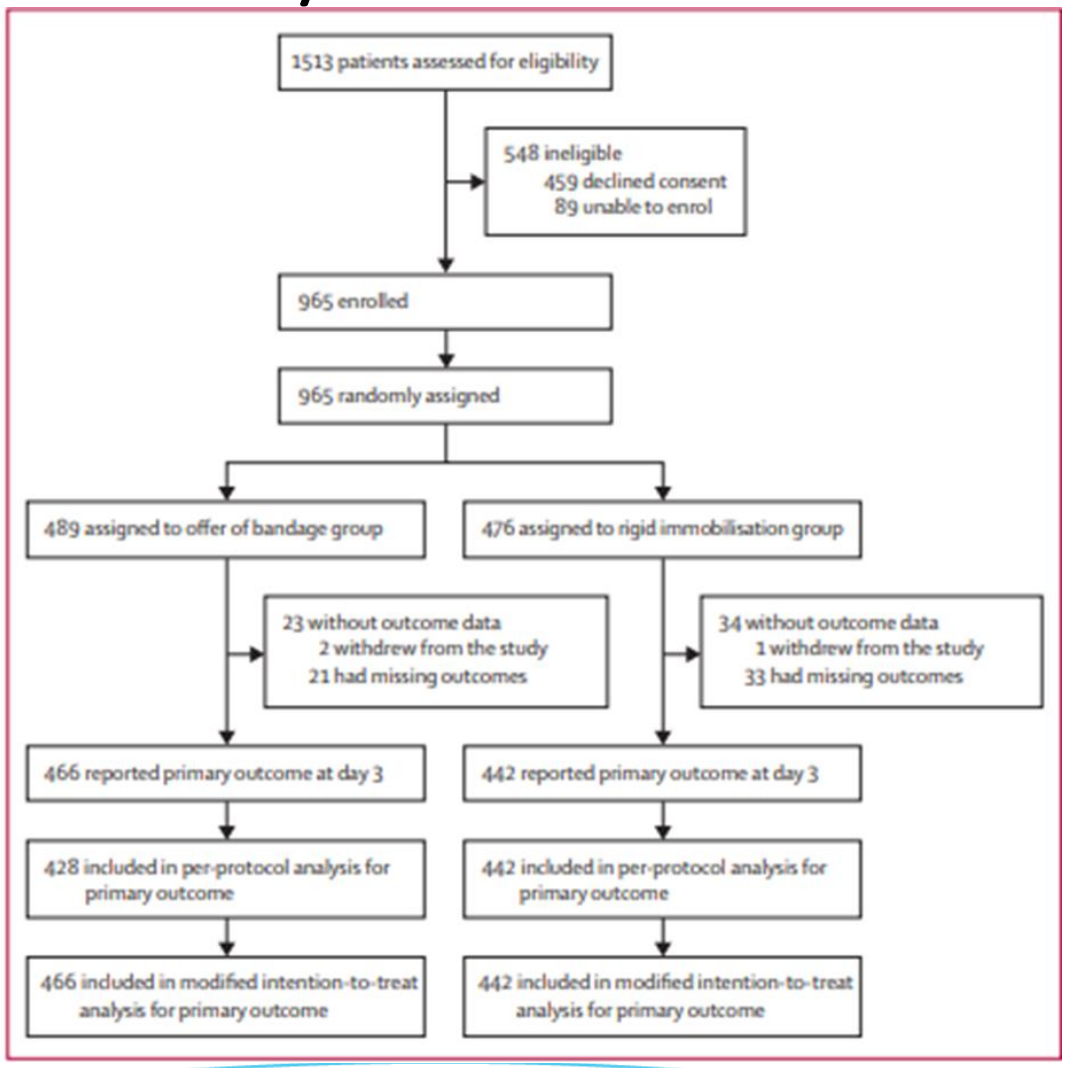
THE URGENT CARE CONVENTION

- Historically all broken bones were casted
- Increasing evidence this is not always necessary
- Are there any fractures that can just be treated with bandaging?
  - Reducing costs
  - Reducing burden on parents – time off, etc
- Covered in *JUCM* Sept 2022 Abstracts



The study



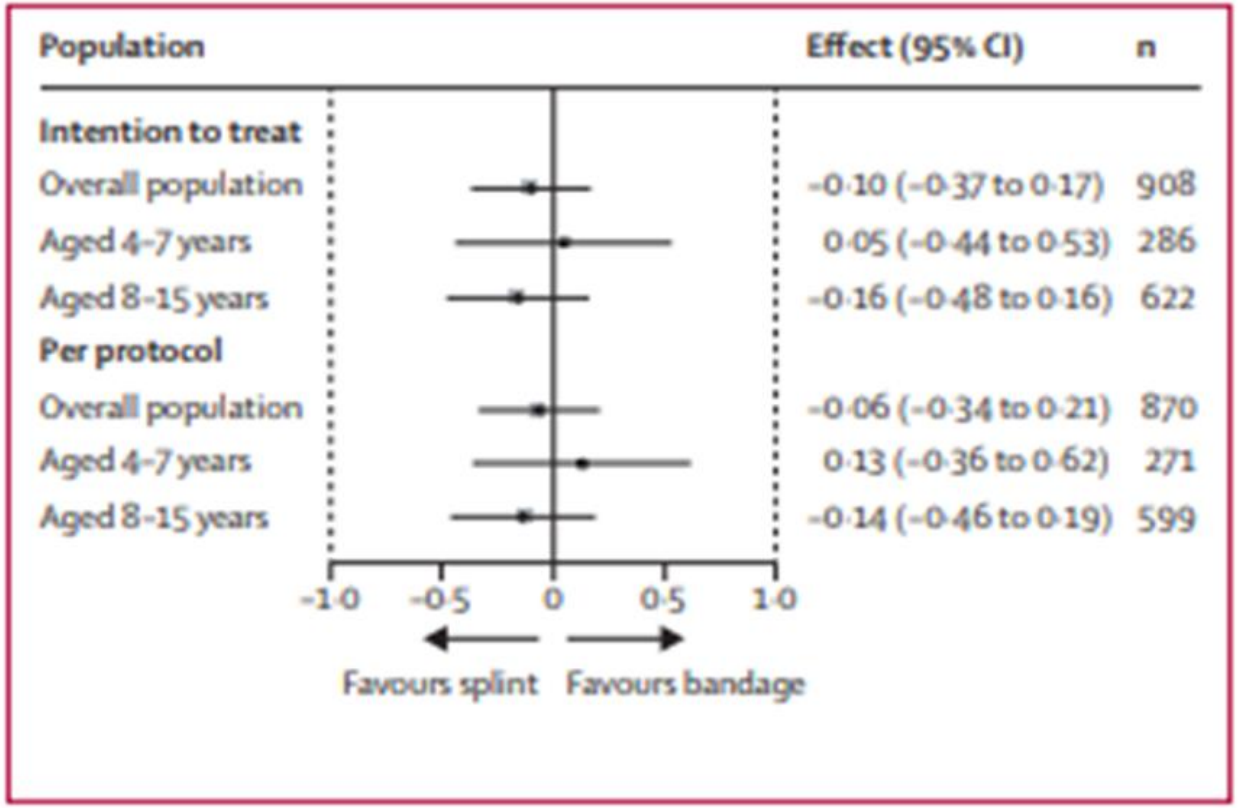
	Offer of bandage group (n=489)	Rigid immobilisation group (n=476)
Age, years	9·61 (2·99)	9·69 (2·85)
Age range, years		
4–7	153 (31%)	147 (31%)
8–15	336 (69%)	329 (69%)
Sex		
Female	179 (37%)	200 (42%)
Male	310 (63%)	276 (58%)

Data are n (%) or mean (SD) unless indicated otherwise.

Results

965 patients were enrolled

- Equivalence between the two treatments
- No significant difference between the bandage group and rigid immobilization group



Discussion

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- Results align with previous Cochrane review
- Differing guidance globally – US/UK/NZ
- Fear of re-fracture

- My personal practice
  - Splint torus fractures
  - Thermoplastic appliances available commercially v those moulded by hand therapist

Paper 2

DRIVING CHANGE 2023
THE URGENT CARE CONVENTION

Efficacy of empiric antibiotic therapy without aspiration for septic prepatellar bursitis in emergency department patients

Thomas A, Beyde A, Sandefur B, et. al.
***Acad Emerg Med* . 2022 Aug;29(8):1027-1032. doi: 10.1111/acem.14499**

Why is it Important?

DRIVING CHANGE 2023
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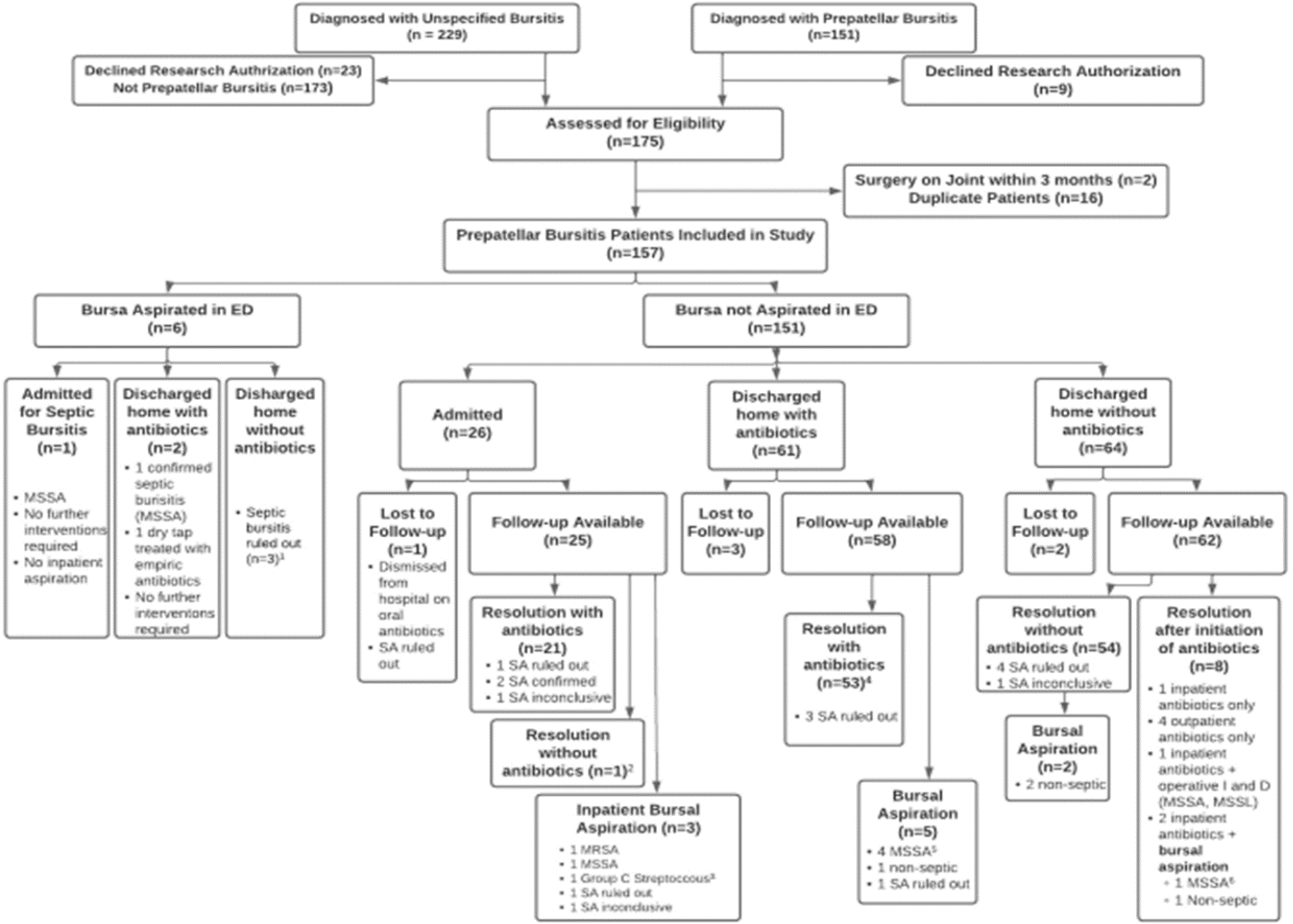
- Bursitis and infected bursitis (prepatellar and olecranon) – common presentation
- Guidelines suggest aspiration
  - Poor evidence to support this
  - Complications from procedure
- Can the infected cases be treated with antibiotics alone?

- Continues work from same group on olecranon bursitis
  - Paper covered in *JUCM* Abstracts May 2022

The Study



Discussion

- Limited by retrospective nature
- Unable to confirm infection without aspiration
- However findings were consistent with their previous work for olecranon bursitis
- Will this paper and the previous work change your practice?

- My practice (based on UK and prev NZ guidance following review by orthopaedic department)
  - Don’t drain them
  - Antibiotics if infective looking
  - NSAIDs and compression for those not infected
  - Septic patients with systemic features - admitted

Paper 3

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Original Investigation | Infectious Diseases

Diagnostic Accuracy of a Bacterial and Viral Biomarker Point-of-Care Test in the Outpatient Setting

Nathan I. Shapiro, MD, MPH; Michael R. Filbin, MD; Peter C. Hou, MD; Michael C. Kurz, MD; Jin H. Han, MD, MSc; Tom P. Aufderheide, MD; Michael A. Ward, MD; Michael S. Pulia, MD, MS; Robert H. Birkhahn, MD; Jorge L. Diaz, DO; Teena L. Hughes, MD; Manya R. Harsch, MS; Annie Bell, MSN, APN; Catalina Suarez-Cuervo, MD; Robert Sambursky, MD

JAMA Netw Open. 2022 Oct 3;5(10):e2234588. doi: 10.1001/jamanetworkopen.2022.34588.

Why is it Important?

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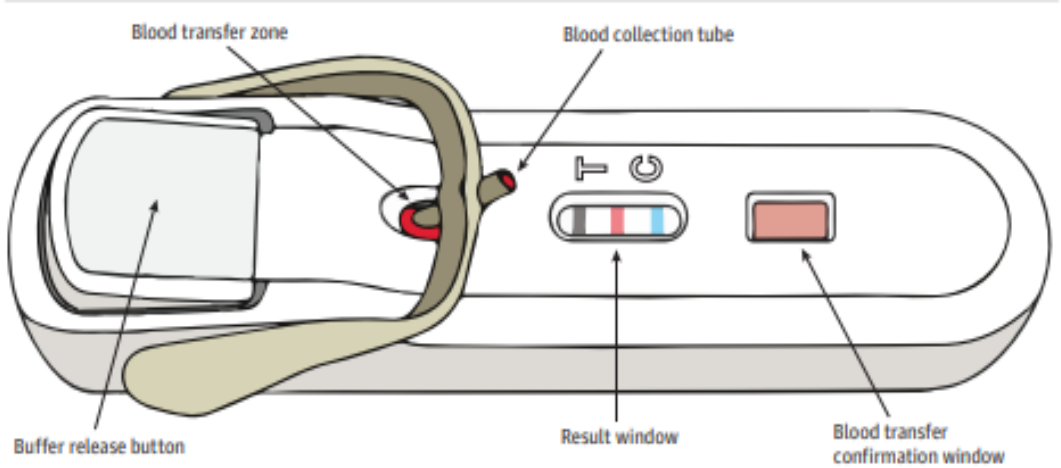
- ARIs frequent presentation to UC
- Distinguishing bacteria v viral
  - Challenging
  - Therapeutic Implications
  - Patient education/satisfaction

What They Did

- Prospective, blinded, multicenter, observational study of a bacterial and viral test devices
  - 9 EDs, 6 UCCs, 5 PCCs in US
- Study Population
  - ARI cohort
  - Asymptomatic cohort



This drawing displays a used test with a viral positive result. The test is visually interpreted using lines that indicate each biomarker. A black line indicates increased C-reactive protein levels and is interpreted as bacterial if a red line is not present. A red line indicates increased MxA and is interpreted as viral with or without a black line. Presence of only a blue control line indicates the absence of increased C-reactive protein or myxovirus resistance protein A levels and is interpreted as negative. A blue control line indicates that the test result is valid.

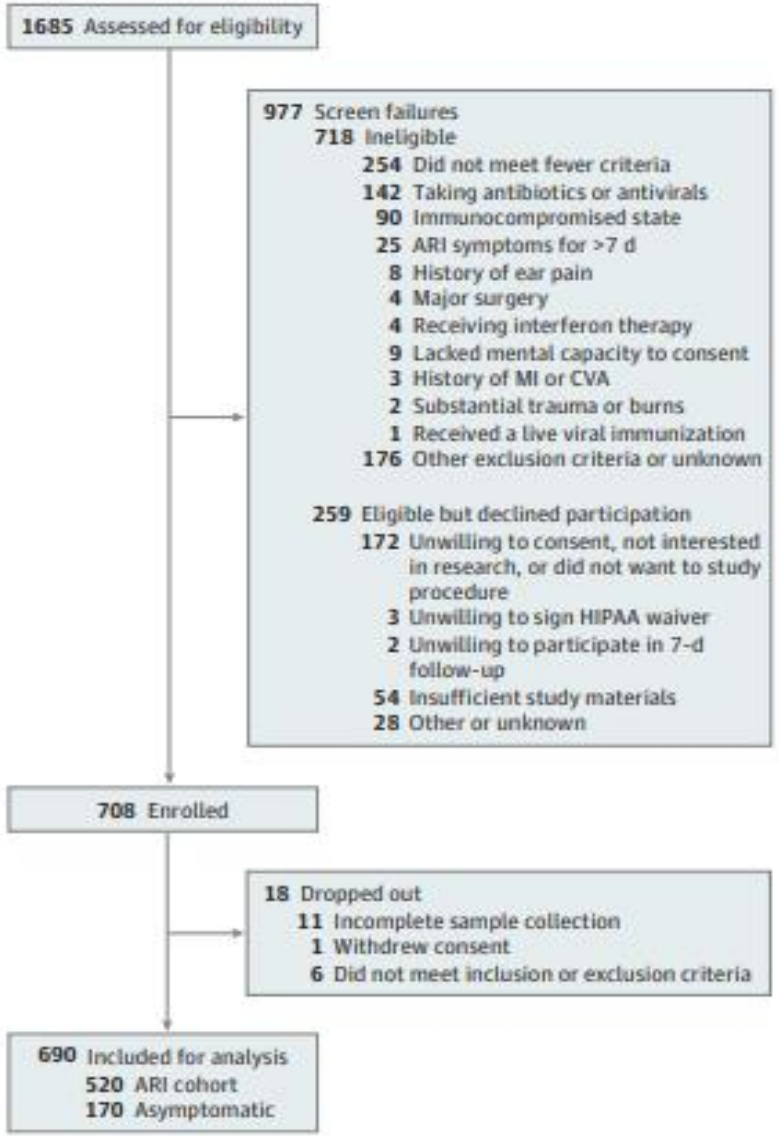


Table 2. Bacterial and Viral Test Performance Characteristics

Characteristic	Associated host immune response			
	Bacterial		Viral	
	No./No.[a]	Value, % (95% CI)	No./No.	Value, % (95% CI)
Prevalence	73/496	14.7 (11.7-17.0)	296/496	59.7 (53.0-61.0)
Sensitivity	68/73	93.2 (84.9-97.0)	208/296	70.3 (64.8-75.2)
Specificity	374/423	88.4 (85.0-91.1)	176/200	88.0 (82.8-91.8)
Predictive value				
Positive	68/117	58.1 (49.1-66.7)	208/232	89.7 (85.1-92.9)
Negative	374/379	98.7 (96.9-99.4)	176/264	66.7 (60.8-72.1)
Likelihood ratio				
Positive	NA	8.0 (6.1-10.5)	NA	5.9 (4.0-8.6)
Negative	NA	0.08 (0.03-0.2)	NA	0.3 (0.3-0.4)

Table 3. Antibiotic Prescription

Bacterial outcome	Patients prescribed antibiotics by clinician, No.					
	With diagnosis of bacterial infection			With diagnosis of viral infection or negative classification		
	Without assay outcome	With assay outcome	Total	Without assay outcome	With assay outcome	Total
Positive	25	43	68	38	11	49
Negative	3	2	5	307	67	374
Total	28	45	73	345	78	423

Discussion

- Limitations
  - Not many over 65s enrolled
  - Large number of screening failures
  - Non generalisation – no convections

- In general
  - Useful tool to aid in clinical decision making

- If this kit is available in your UCC
  - Will this change your management?

Paper 4

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Effectiveness of the modified Valsalva manoeuvre in adults with supraventricular tachycardia: a systematic review and meta-analysis

Eric Lodewyckx[a] and Jochen Bergs[a,b]

European Journal of Emergency Medicine 2021, 28:432–439

Why Is This Important?

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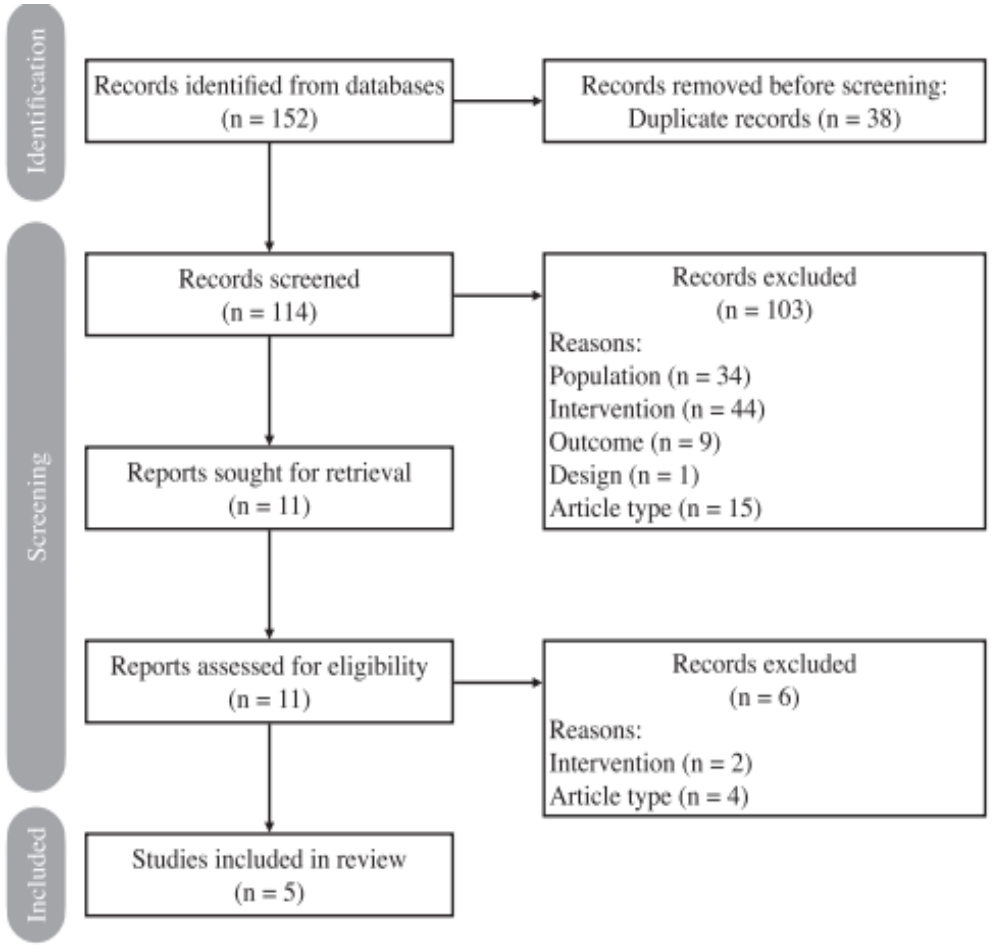
THE URGENT CARE CONVENTION

- Patients presenting to UC do come with different conditions
- We need to be prepared for all eventualities
- UC limited by what is available
  - Medications
  - UCC Standards – USA, UK, NZ
- Knowing other non-medicinal strategies
  - Valsalva Manoeuvre (VM) and Modified Valsalva Manoeuvre (MSM) - SVT treatment

What They Did

- Systemic review of present literature
  - The Cochrane Library, MEDLINE, EMBASE, CENTRAL and Web of Science databases
  - Only RCTs were reviewed comparing VM vs MVM

- MVM
  - Patient sits up straight and perform a forced expiration for about 15 s
  - Then patient is brought into a supine position with the legs raised (45°) for another 15 s.



What They Found

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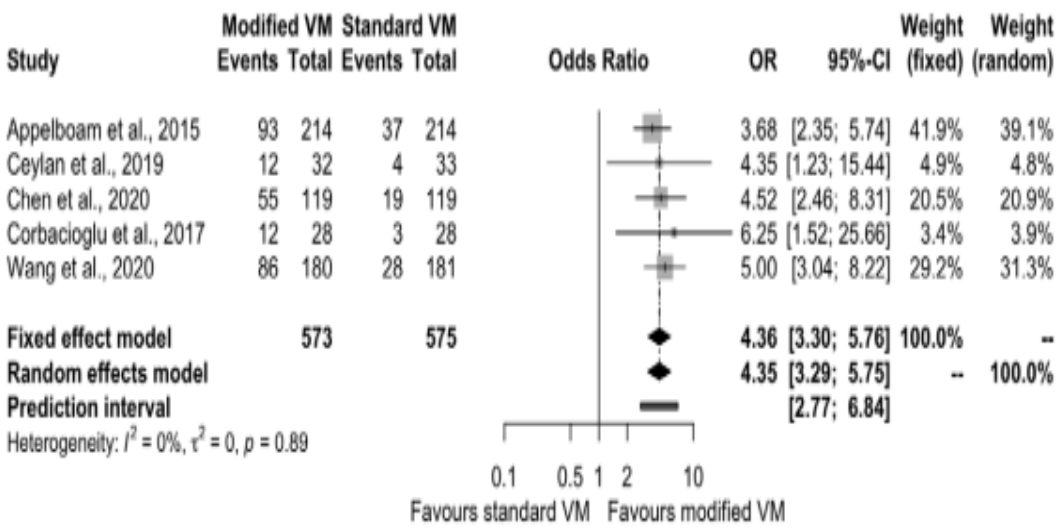
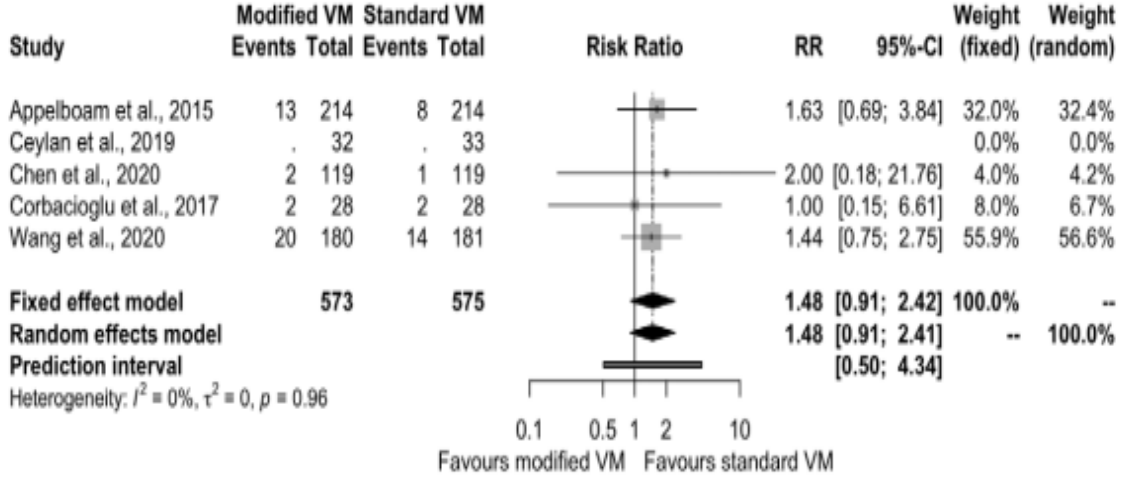


Forest plot reconversion success.



Forest plot adverse events.

Discussion

- 1st Systemic Review on the matter
- 1181 patients review over the 5 papers selected
- VM and MVM – safe options for treatment
  - Should be considered as first line treatments
  - Improves outcomes, reduces need for other interventions

- My practice
  - Try VM first
  - If unsuccessful then MVM – 6 out of 8 converted to date
  - Has improved the way I approach SVT – improved patient journeys

Paper 5

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THE URGENT CARE CONVENTION

ORIGINAL ARTICLE

Cosmetic Outcomes of Simple Pediatric Facial Lacerations Repaired With Skin Adhesive Compared With Skin Adhesive With Underlying Adhesive Strips

A Randomized Controlled Trial

Erin Munns, MD,† Andrew J. Kienstra, MD,*† Patrick D. Combs, MD,‡ Giovanni Gabriele, MPH,§ and Matthew Wilkinson, MD, MPH*†*

Pediatric Emergency Care • Volume 38, Number 10, October 2022

Why Is This Important?

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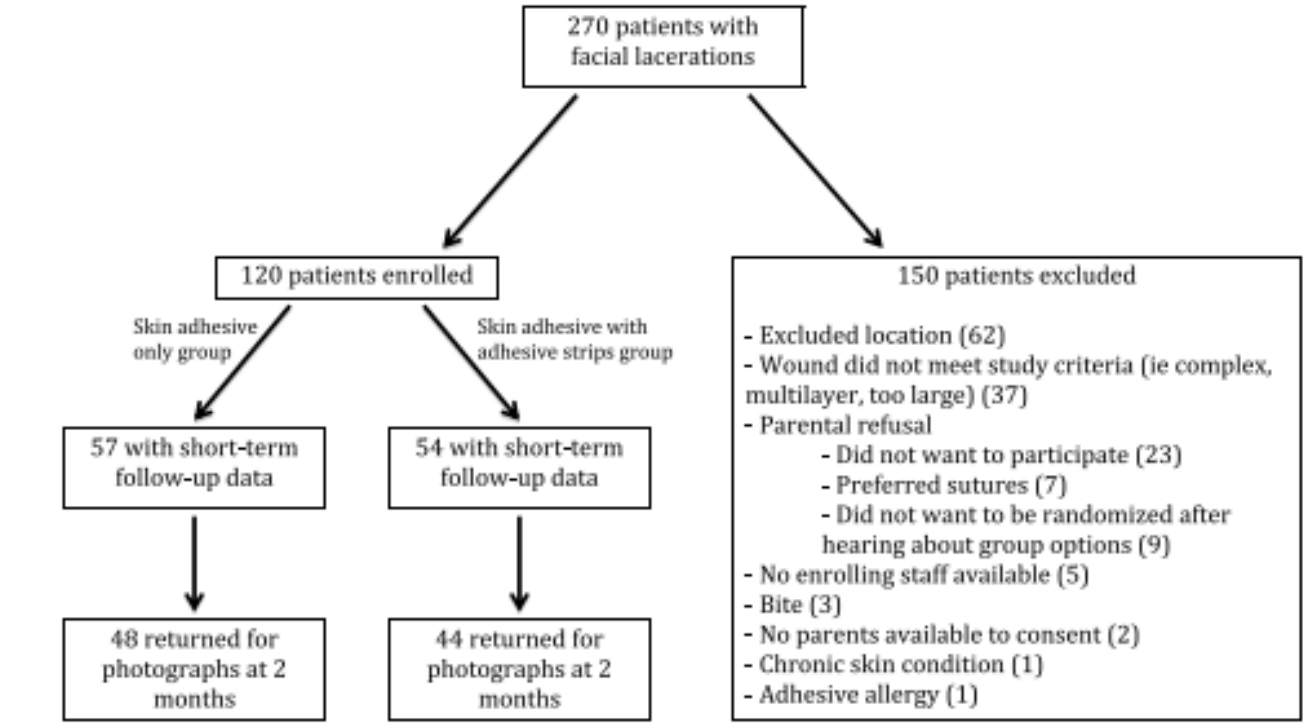
- Facial wounds common
- Parents always ask about cosmetic outcomes
  - Multiple methods to approach – suture, adhesive strips, skin adhesives (i.e. glue)
  - Suturing procedure can be traumatic experience for most children
- Is there evidence that one method is better
- Combining procedures – strips + glue
- This paper answers some of these conundrums…

What They Did

- RCT
  - Comparing Strips Only vs Strips + Glue
  - U18s enrolled
  - Wounds <5cm
  - Follow up done 2 months post repair
    - Photos taken
  - VAS score used to judge wound healing
    - Adjudicated by PEM and Pediatric Plastic Surgeon



Enrollment data.

What They Found

TABLE 2. Comparison of Skin Adhesive With Underlying Adhesive Strips Versus Skin Adhesive Alone Outcome Measures

	Skin Adhesive Alone Group	Skin Adhesive With Adhesive Strips Group	*P*
Cosmetic VAS (mm), mean (SD)			
Rater 1	62 (18)	65 (21)	0.485
Rater 2	53 (15)	55 (18)	0.693
Combined average	58 (15)	60 (18)	0.540
Time to repair (s), mean (SD)	107 (77)	195 (123)	<0.001
Ease of repair (VAS) (mm), mean (SD)	18 (19)	24 (23)	0.127
Assistants used, median (IQR)	1 (1.25)	1 (1)	0.418
Unscheduled follow-up visits, n (%)	3 (5)	4 (7)	0.712
Wound dehiscence, n (%)	2 (3.5)	2 (4)	1.000
Need for additional procedures, n (%)	2 (3.5)	3 (5.5)	0.673
Infection, n (%)	1 (2)	1 (2)	0.234

IQR indicates interquartile range.

- Bottom line
  - No significant difference in cosmesis for either technique
  - Combination technique took longer to do

Discussion

- Complication rates were reported by parents
  - Risk of over/under-reporting
- Only one type of glue was used
  - many versions on the market
- Only facial wounds investigated
  - Unable to generalise to limbs

- My practice
  - Glue then use strips to reinforce
  - Old habits – from plastic surgery training days!
  - I might need to revisit my own practice… esp. for facial wounds
    - Self-auditing in progress – n=3 so far

- How does this differ from your own practice?

Questions/Discussions

How Can You Drive Change

- Will These Papers Affect Your Current Practice?
- Are There Any Factors That Re-affirm/Challenge Your Present Practice?

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Session Evaluation

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- Your feedback is valuable, take a moment to complete the survey for this session.
- To claim CME, you must complete a separate survey available after the convention.