

Union Connection

Vol. 223 | September 2026

Message from the Chief Hospital Manager

Dear Colleagues,

During the few weeks between the end of May 2026 and the 10th July, Union Hospital underwent two extensive organization-wide audits by internationally established accreditation bodies of world renown. On May 26 and 27, it was the annual Continual Assessment Visit (CAV) by the British Standards Institution (BSI) for our ISO 9001:2015 accreditation and in the whole week from July 6 to 10 inclusive, it was the turn for the Australian Council on Healthcare Standards International (ACHSI) to scrutinize various clinical and nursing services of the hospital.

Our Odyssey on accreditation began in 1999 when the whole hospital achieved ISO accreditation by LRQA (Lloyd's Register Quality Assurance). The major attractions of ISO for our hospital were the Quality Management System (QMS) which it advocated and the internal auditing activities that came with it. The ISO QMS stipulated that all the departments, including top management i.e. the Management Board and the Chief Hospital Manager would have their terms of reference and job nature well defined and documented as departmental procedure. Each department would have its own departmental procedure and organization hierarchy precisely delineated with job nature and target achievements detailed. The grassroots workers would do their jobs according to standard working guidelines (SWGs). The spirit of ISO accreditation at that time was 'compliance'. When we started with the project, we engaged the service of a consultancy firm Havering Radcliffe Ltd headed by Mr Martin Randell who specialized in construction industry in Hong Kong with more than 25 years management consultancy experience. Together with Mrs Fan Wong, the Quality Assurance Officer of Union Hospital at the time, we were responsible for writing up all the documentation required for accreditation.

We managed to have the whole hospital accredited by LRQA at the first go without any items recommended for improvement. This was first in the history of accreditation activities in HK hospitals, private and public alike. In the ISO 9001:2015 version of standards, performance of each department or unit was to be quantified and thus an element of 'continuous quality improvement' became established. This came to be engraved into our hospital culture.

Another element of ISO accreditation which I valued most is the cross-department internal auditing, which is a regular activity. Internal auditors selected from various departments went through a certified course of formal training by the Accreditation Consultancy firm. They are teamed up to audit other departments at regular intervals. The process is like 'cross pollination', thus finding out areas for improvement in the auditee department as well as learning good practices worth being introduced in their own work-place. After being accustomed to the above auditing activities, an element of 'open disclosure' is being nurtured in the minds of our staff, thus becoming ingrained in our hospital culture. This sort of behaviour enables our staff to face the scrutiny and interrogation by external surveyors during a formal accreditation process.

The Organization Wide Survey (OWS) by ACHSI in early July is another category of fish. It is based on the standards and criteria of EQIP7 which stands for Evaluation and Quality Improvement Program (7th edition). The theme is on continuous quality improvement in various departments of the hospital, both clinical and domestic. Thus each unit of the hospital has to come up with three or more areas identified for improvement and to devise ways to achieve the target with quantifiable outcome. The OWS will start off each 3-year cycle. In between there will be two annual sessions to report progress for discussion. In the OWS there will be a team of local qualified surveyors led by the Head Surveyor from Australia, Mr David Gunderson. During the last survey David conducted the whole accreditation process by Zoom with a mobile audio-visual cart to take him to areas he would like to visit and to discuss relevant matters with our responsible staff. The reason for him not being in HK in person was because of the prohibitive costs of travel insurance, especially against Covid infection!

So much so for my message on accreditation and I would like to end by wishing you and your family a wonderful Mid-Autumn Festival 闔家團聚賀中秋.

Yours most sincerely,

Dr Anthony K Y Lee

Chief Hospital Manager & Medical Director

Incretin Therapy in Weight Management and Cardio-Renal-Metabolic Disease

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Obesity is now understood as a chronic, relapsing adiposity-based disease rather than simply an excess number on a scale. Its clinical importance lies in its close, bidirectional relationship with type 2 diabetes, atherosclerotic cardiovascular disease (ASCVD), heart failure and chronic kidney disease (CKD)—the **cardio-renal-metabolic (CRM)** continuum. Incretin therapies, principally glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and the dual glucose-dependent insulinotropic polypeptide (GIP)/GLP-1 agonist tirzepatide, have therefore changed the treatment goal. They address hyperglycaemia and appetite while also modifying body weight and several linked organ-risk pathways. Their emergence represents a move from glucose-centred care towards integrated CRM risk reduction.

Metabolic control: HbA1c and body weight

GLP-1 RAs augment glucose-dependent insulin secretion, suppress inappropriate glucagon secretion, delay gastric emptying and reduce appetite. Because insulin stimulation is glucose-dependent, clinically important hypoglycaemia is uncommon unless these agents are combined with insulin or a sulfonylurea. Semaglutide demonstrated the ability to produce large and durable weight loss: in STEP 1, 68 weeks of weekly semaglutide 2.4 mg produced a mean 14.9% reduction in body weight, compared with 2.4% with placebo, alongside lifestyle intervention.¹

Dual agonism has raised this metabolic ceiling. In SURPASS-2, tirzepatide lowered HbA1c by 2.01–2.30 percentage points at 40 weeks, versus 1.86 percentage points with semaglutide 1 mg; it also produced a further 1.9–5.5 kg weight reduction, depending on dose.² In people with obesity without diabetes, SURMOUNT-1 reported mean weight losses of 15.0%, 19.5% and 20.9% with weekly tirzepatide 5, 10 and 15 mg, respectively, at 72 weeks.³ Such changes are clinically meaningful because weight reduction improves blood pressure, triglycerides, hepatic steatosis and insulin resistance. Nevertheless, diet quality, physical activity, resistance training and long-term adherence remain essential; pharmacotherapy does not replace comprehensive care.

End-organ protection across the CRM continuum

The most important advance is that incretin therapy is no longer supported only by surrogate endpoints. The SELECT trial enrolled 17,604 adults with established cardiovascular disease, overweight or obesity, and no diabetes. Weekly semaglutide 2.4 mg reduced the composite of cardiovascular death, non-fatal myocardial infarction or non-fatal stroke from 8.0% to 6.5% (hazard ratio [HR] 0.80), demonstrating cardiovascular protection beyond glucose lowering.⁴ This finding is especially relevant to CRM practice, where adiposity, inflammation, blood pressure and dyslipidaemia often coexist.

Renal evidence has also become more definitive. In FLOW, adults with type 2 diabetes and CKD receiving weekly semaglutide 1.0 mg had a 24% lower risk of the primary composite of kidney failure, sustained $\geq 50\%$ eGFR reduction, or kidney- or cardiovascular-related death (HR 0.76). Semaglutide also slowed annual eGFR decline and reduced cardiovascular death.⁵ These results support a practical interpretation: incretin therapy can complement—not substitute for—renin-angiotensin system blockade, SGLT2 inhibition, lipid management and blood-pressure control. Choice of therapy should reflect the patient's diabetes status, kidney function, ASCVD and heart-failure profile, tolerability, access and preferences.

Future directions: stronger, more convenient and body-composition-aware treatment

The next generation aims to make treatment stronger. Retatrutide, an investigational triple agonist at GLP-1, GIP and glucagon receptors, achieved up to 24.2% mean weight loss at 48 weeks in a phase 2 obesity trial.⁶ Its glucagon-receptor activity may enhance energy expenditure and hepatic lipid handling, but longer phase 3 trials must establish cardiovascular safety, durability and the appropriate balance between efficacy and gastrointestinal or heart-rate effects.

A second direction is convenience. Once-daily oral small-molecule GLP-1 agonists may reduce injection barriers: in ATTAIN-1, oral orforglipron 36 mg produced 11.2% mean weight loss at 72 weeks, although gastrointestinal adverse effects and discontinuations remained dose-related.⁷ At the other extreme, once-monthly maridebart cafraglutide (MariTide), a GLP-1 receptor agonist/GIP-receptor antagonist conjugate, produced 12.3–16.2% mean weight loss at 52 weeks in phase 2; slower dose escalation reduced gastrointestinal events.⁸ These candidates are investigational, so convenience must not be confused with established long-term benefit.

Finally, future care must aim for better tolerability and healthier weight loss, rather than merely fewer nausea events. CagriSema combines semaglutide with the long-acting amylin analogue cagrilintide; it is being evaluated in phase 3 programmes, including cardiovascular-outcomes research.⁹ It may broaden satiety pathways and allow individualised titration, but it has not yet proven universally less gastrointestinally toxic than GLP-1 therapy alone. Bimagrumb, an activin type II receptor antibody, is being studied with semaglutide to preserve or increase lean mass while fat mass falls.¹⁰ This is important because rapid weight loss can reduce muscle as well as fat. Thus, the future benchmark should include body composition, strength and function, not body weight alone.

In summary, incretin therapy has progressed from HbA1c lowering to disease-modifying CRM management. Current evidence supports major reductions in weight and glycaemia, as well as cardiovascular and kidney protection in defined high-risk populations. The next challenge is to deliver these benefits more powerfully, conveniently and safely, while preserving lean tissue and ensuring equitable, long-term access.

References

1. Wilding JPH, et al. Once-Weekly Semaglutide in Adults with Overweight or Obesity. *New England Journal of Medicine*. 2021;384:989–1002. doi:10.1056/NEJMoa2032183.
2. Frias JP, et al. Tirzepatide versus Semaglutide Once Weekly in Patients with Type 2 Diabetes. *New England Journal of Medicine*. 2021;385:503–515. doi:10.1056/NEJMoa2107519.
3. Jastreboff AM, et al. Tirzepatide Once Weekly for the Treatment of Obesity. *New England Journal of Medicine*. 2022;387:205–216. doi:10.1056/NEJMoa2206038.
4. Lincoff AM, et al. Semaglutide and Cardiovascular Outcomes in Obesity without Diabetes. *New England Journal of Medicine*. 2023;389:2221–2232. doi:10.1056/NEJMoa2307563.
5. Perkovic V, et al. Effects of Semaglutide on Chronic Kidney Disease in Patients with Type 2 Diabetes. *New England Journal of Medicine*. 2024;391:109–121. doi:10.1056/NEJMoa2403347.
6. Jastreboff AM, et al. Triple-Hormone-Receptor Agonist Retatrutide for Obesity—A Phase 2 Trial. *New England Journal of Medicine*. 2023;389:514–526. doi:10.1056/NEJMoa2301972.
7. Wharton S, et al. Orforglipron, an Oral Small-Molecule GLP-1 Receptor Agonist for Obesity. *New England Journal of Medicine*. 2025. doi:10.1056/NEJMoa2511774.
8. Jastreboff AM, et al. Once-Monthly Maridebart Cafraglutide for the Treatment of Obesity—A Phase 2 Trial. *New England Journal of Medicine*. 2025. doi:10.1056/NEJMoa2504214.
9. ClinicalTrials.gov. REDEFINE 1: CagriSema in People Living with Overweight or Obesity; REDEFINE 3 cardiovascular-outcomes trial. Accessed 17 August 2026.
10. ClinicalTrials.gov. Bimagrumb Alone or with Semaglutide in Overweight or Obese Adults (NCT05616013). Accessed 17 August 2026

Bougie Versus Stylet for Endotracheal Intubation by Video Laryngoscopy: A Systematic Review and Meta-Analysis

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Abstract

Background

This systematic review and meta-analysis compares the effectiveness of stylet versus bougie for first-pass intubation success using video laryngoscopy. Previous systematic review and meta-analyses on both video laryngoscopy (VL) and direct laryngoscopy (DL) concluded bougie should probably be used first. However, the optimal introducer with solely VL remains uncertain.

Methods

A literature search was conducted using PubMed, Embase, and the Cochrane Library, including randomised controlled trials (RCTs) and observational studies, excluding simulation-based studies. Primary outcome was first-pass intubation success; secondary outcome was time to intubation (TTI). Random-effects models pooled relative risks (RRs) and mean differences (MDs). Subgroups by blade geometry (hyperangulated blades versus Macintosh-type blades) were prespecified. Leave-one-out sensitivity analyses were performed.

Results

The use of a bougie during intubation with VL had no overall difference in first-pass intubation success rate when compared to stylet. (RR = 1.06, 95% CI 0.91 to 1.23; $I^2 = 76.4\%$). For the subgroup analyses comparing hyperangulated blades and Macintosh-type blades, the conclusion was similar. (Hyperangulated blades group: RR = 1.01, 95% CI 0.80 to 1.27; $I^2 = 85.9\%$; Macintosh-type blades group: RR = 1.09, 95% CI 0.86 to 1.38, $I^2 = 59.7\%$). Pooled MD of the time to intubation (TTI) (bougie minus stylet) showed that bougie was slower by 18.9 seconds (95% CI 11.4 to 26.5; $I^2 = 82\%$).

Conclusion

In VL-guided tracheal intubation, the use of a bougie had no overall difference in first-pass intubation success rate when compared to stylet. However, the time to intubation is shorter with stylet. Clinicians should make introducer choices tailored to individual scenarios.

Introduction

First-pass success in endotracheal intubation is critical as multiple attempts are associated with increased complications such as hypoxaemia and aspiration.¹ Video laryngoscopy (VL) has become widely used to improve glottic visualisation and intubation success in both elective and emergency settings especially after the COVID pandemic. However, improved visualisation does not guarantee easy tube delivery. Hyperangulated blades, in particular, create an anatomically favourable line of sight but a challenging trajectory for advancing the endotracheal tube. It often requires adjuncts like a malleable stylet or a bougie introducer.² A standard stylet shapes the endotracheal tube for easier insertion, whereas a bougie is a semi-rigid introducer that can be placed into the trachea ahead of the tube. Guidelines and airway experts frequently recommend using introducers in difficult intubations to improve first-pass success but there is ongoing debate over whether a bougie or a stylet is the superior first-line tool during video laryngoscopy.² Some clinicians advocate routine bougie use to maximise initial success, while others prefer the familiarity and speed of a stylet. Recent studies have yielded mixed results, with some suggesting higher success with bougies³ and others showing no difference¹ or context-dependent outcomes. We performed a systematic review and meta-analysis of the literature to compare bougie versus stylet use in video laryngoscopy, focusing on first-attempt intubation success as the primary outcome. Secondary outcomes included time to intubation. We also sought to explore heterogeneity by blade geometry.

Methods

This review adheres to PRISMA guidelines. We conducted a comprehensive literature search of PubMed, Embase, and the Cochrane Library for studies comparing the use of a bougie versus a stylet during video laryngoscopy. The search was performed using keywords such as (“Intubation” OR “Endotracheal intubation”), AND (“Tracheal tube introducer” OR “Gum elastic bougie” OR “Flexible tip bougie” OR “Eschmann tracheal tube introducer” OR “Frova introducer” OR “Stylet”). The search was limited to human studies and without language restrictions. We also screened reference lists of relevant articles for any additional citations. The process has been summarised in a PRISMA flow chart (Figure 6).

Inclusion criteria:

Studies were eligible if they directly compared bougie versus stylet as the primary intubation adjunct in patients undergoing endotracheal intubation with a video laryngoscope. We included both randomised controlled trials (RCTs) and observational studies (prospective or retrospective) that reported outcomes of interest. Both elective (e.g. operating room) and emergent (e.g. emergency department or intensive care units) intubation settings were included.

Exclusion criteria:

We excluded manikin-based or simulation studies, cadaver studies, and case series or case reports. Paediatric studies were excluded to focus on adult intubation. If a study did not use a video laryngoscope in either arm, it was excluded. When multiple publications reported overlapping data from the same cohort, we included the most comprehensive or recent report.

Outcomes:

The primary outcome was first-pass intubation success, most commonly defined as successful tracheal intubation on the first attempt. Secondary outcome included intubation time, typically defined as time from laryngoscope insertion to end-tidal CO₂ confirmation or equivalent. We accepted each study’s definition of these outcomes as reported.

Data extraction and analysis:

One investigator initially screened titles/abstracts, reviewed full texts for eligibility and extracted data using a standardised form and a second reviewer independently cross-checked it to ensure accuracy. Disagreements were resolved by consensus. Extracted data included study design, setting, sample size, patient characteristics, video laryngoscope type, and outcomes (first-pass success rates and mean or median intubation times). We assessed risk of bias for RCTs with Cochrane risk of bias tool.

We performed random-effects meta-analyses using the DerSimonian–Laird method. For first-pass success, we synthesised relative risks (RRs) with 95% confidence intervals (CIs) on the log scale with continuity correction for sparse cells was used. For time to intubation, we pooled mean differences (MDs; bougie minus stylet) with 95% CIs. Subgroup analysis comparing hyperangulated blades and Macintosh-type blades for both outcomes was also performed.

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Between-study heterogeneity was quantified using the Q statistic and I^2 . Prespecified subgroup analyses stratified trials by blade geometry (hyperangulated blades versus Macintosh-type blades). Sensitivity analyses included leave-one-out re-estimation of the pooled effect.

Results

Study Selection and Characteristics

The search yielded 493 unique articles. After screening the titles and abstracts and eligibility assessment, five randomised controlled trials (RCTs) met inclusion criteria with a total of 493 participants and were included in the analysis. All used VL and compared a bougie-assisted technique to a stylet-assisted technique. Four trials^{2,5,7,9} were conducted in an elective operating-room (OR) anesthesia setting and one¹⁰ was conducted in an intensive care unit (ICU) setting. Two trials used Macintosh-type blades (C-MAC Macintosh);^{2,5} three used hyperangulated blades (C-MAC D-blade or GlideScope).^{7,9,10} One RCT⁵ did not mention the skill level of the operators. Other RCTs involved skilled consultant anesthesiologists or residents with experiences of intubation at least more than 12 months.^{2,7,9,10}

Primary Outcome: First-Pass Intubation Success

In the meta-analysis of five studies, the use of a bougie during intubation with VL had no overall difference in first-pass intubation success rate when compared to stylet. (RR = 1.06, 95% CI 0.91 to 1.23; I^2 = 76.4%). Heterogeneity was substantial. (Figure 1a)

For the subgroup analyses, the conclusion was similar. For both the hyperangulated blades group (RR = 1.01, 95% CI 0.80 to 1.27; I^2 = 85.9%) and the Macintosh-type blades group (RR = 1.09, 95% CI 0.86 to 1.38, I^2 = 59.7%), the use of a bougie during intubation with video laryngoscopy had no overall difference in first-pass intubation success rate when compared to stylet. (Figure 2a, 3)

However, on leave-one-out sensitivity analyses by excluding the trial by Nirenjen 2023⁹, it yielded a statistically significant pooled effect with between-study heterogeneity reduced (RR = 1.13, 95% CI 1.04 to 1.22; I^2 = 23.8%; Hyperangulated subgroup RR = 1.14, 95% CI 1.06 to 1.22; I^2 = 0%). (Figure 1b, 2b)

A funnel plot is provided for visual assessment of small-study effects; with only five trials, formal asymmetry testing is underpowered. (Figure 5)

Secondary Outcome: Time to Intubation (TTI)

Four RCTs^{2,5,7,9} reported time to intubation (TTI) means and standard deviations. Pooled MD (bougie minus stylet) showed that bougie was slower by 18.9 seconds (95% CI 11.4 to 26.5; I^2 82%). All included studies reported longer intubation times with bougie, though magnitudes varied by blade geometry and operator context. (Figure 4)

Discussion

This meta-analysis of five RCTs suggests that, during VL-guided intubation, the use of a bougie during intubation with VL had no overall difference in first-pass intubation success rate when compared to stylet. For the subgroup analyses between hyperangulated blades (C-MAC D-blade, GlideScope) and Macintosh-type blades, the conclusion was also similar. RCTs using hyperangulated blades^{7,10} reported higher first-pass intubation success rate with bougie while RCTs using Macintosh-type blades reported mixed results with one favoured bougie⁵ and another favoured stylet². We postulate that although the hyperangulated blades provide a better view of the glottis due to its angle, the line of sight is not aligned with the natural curvature of the endotracheal tube. It might be easier to align with the hyperangulated blades with the use of a steerable introducer such as bougie. In contrast, Macintosh-type blades resemble more closely to the natural curvature of the stylet-reinforced endotracheal tube therefore the relative advantage of bougie for first-pass success is less significant.

On leave-one-out sensitivity analyses by excluding the trial by Nirenjen 2023⁹, it yielded a statistically significant pooled effect with between-study heterogeneity reduced. In that trial, 60 degree angled C-MAC stylet was used in patients with cervical immobility by manual in-line stabilisation. The trial reported significant easier intubation with fewer attempts with 60 degree angled stylet compared with bougie. This trial targeted at a specific tool (60 degree angled C-MAC stylet) in a specific scenario (patient with cervical immobility) and might not be generalisable to all adult patients.

The time to intubation (TTI) was consistently slower in all included studies by 11 to 27 seconds with pooled MD of 18.9 seconds. This is expected as bougie-first intubation requires multiple steps: after a good view of the glottis is obtained, a bougie has to be inserted first before railroading the endotracheal tube. On the other hand, for stylet-first intubation, a stylet-reinforced tube can be inserted immediately after a good view is obtained.

The practical implication is that introducer choice should be tailored. A bougie-first approach may be sensible when hyperangulated blades are used or when in difficult airway scenarios where first-pass success is paramount. A stylet-first approach may be preferred when minimising intubation time is critical e.g. if the patient to be intubated has poor respiratory reserve and is expected to have easy desaturation, or if rapid sequence intubation is indicated in patients with high aspiration risk.

The substantial heterogeneity was likely contributed by the differences in blade geometry (hyperangulated blades versus Macintosh-type blades), different types of stylet or bougie used, operator experiences and familiarity with a given introducer, clinical setting (ICU versus elective OR), and case-mix.

Comparison with Previous Research

Driver et al published three RCTs previously comparing the use of bougie and stylet in endotracheal intubation.^{1,3,11} In which, two of them were single study RCTs^{1,3} conducted in a single emergency department (ED) favoured bougie in terms of first-pass intubation success rate while one of them was multi-centre RCT¹¹ conducted in ED and ICU yielded no difference between bougie and stylet. The mixed results might be attributed to the differences in patients, operators and intubation context. All three RCTs reported longer time to intubation with bougie which concurred with our study. The data of the three RCTs^{1,3,11} had mixed use of video laryngoscope (VL) and direct laryngoscope (DL) with no subgroup analysis between the two groups therefore its data was not used in our analysis focusing on VL.

Von Hellmann R et al. recently published a systematic review and meta-analysis comparing the use of bougie and stylet in endotracheal intubation in both VL and DL while our study focused on VL only.¹² von Hellmann R et al showed that bougie was associated with a higher first-pass intubation success rate especially in patients with higher Cormack-Lehane grading. This concurs with our postulation that bougie might be more beneficial with the use of hyperangulated blades as in both situations the paths of intubation are more acute which favour the use of a steerable introducer like bougie.

Strengths and Limitations

Strengths include restriction to randomised designs, transparent and reproducible analyses with shared code and outputs, and prespecified subgrouping by a clinically plausible effect modifier which is blade geometry.

Limitations include high heterogeneity, small sample sizes, unfeasibility of operator blinding and variability in TTI definitions. One ICU trial evaluated a flexible-tip bougie¹⁰, which may not generalise to all bougie types.

Conclusions

In VL-guided tracheal intubation, the use of a bougie had no overall difference in first-pass intubation success rate when compared to stylet. However, the time to intubation is shorter with stylet. Clinicians should make introducer choices tailored to individual scenarios. Factors to consider include the types of blade used (hyperangulated blades versus Macintosh-type blades), patient factors e.g. expected airway difficulty and respiratory reserve and operator own device familiarity. More large, methodologically rigorous RCTs are warranted, especially trials stratified by blade type and operator experience, to refine guidance for specific clinical contexts.

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Figures

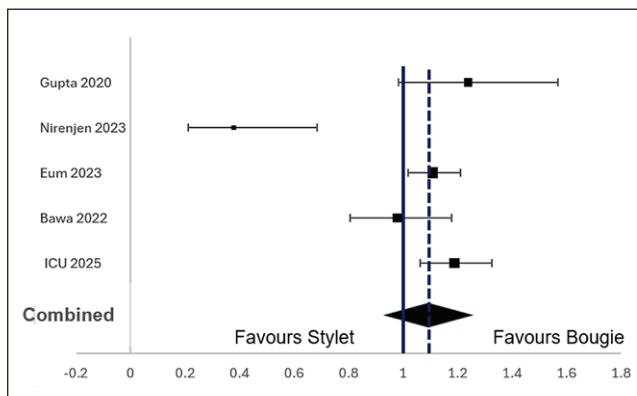


Figure 1a. Forest plot: first-pass success of all included studies (relative risks; random-effects, 95% CI)

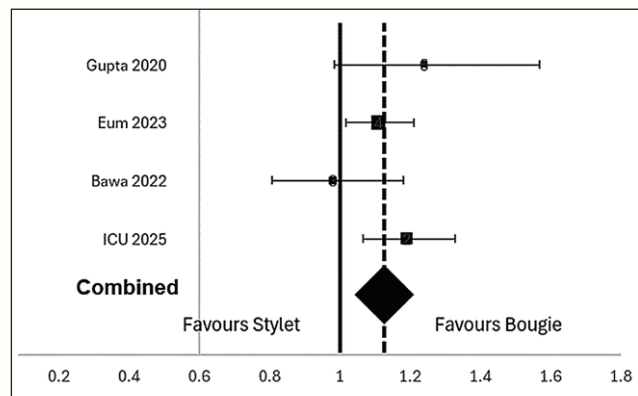


Figure 1b. Forest plot: first-pass success of both groups with sensitivity analysis (Nirenjen 2023 excluded) (relative risks; random-effects, 95% CI)

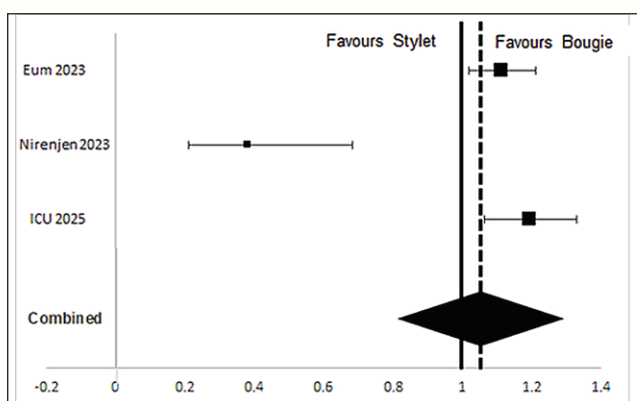


Figure 2a. Forest plot: first-pass success of hyperangulated blades subgroup (relative risks; random-effects, 95% CI)

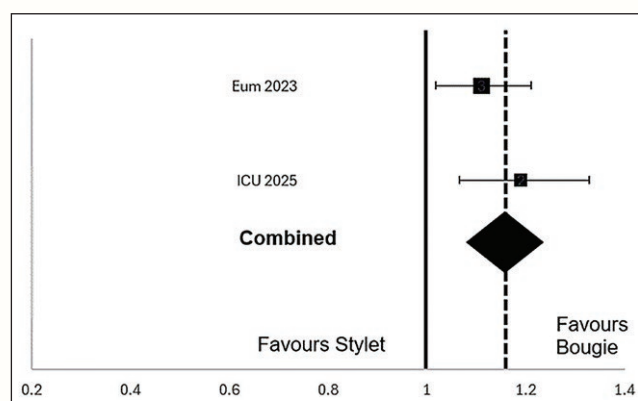


Figure 2b. Forest plot: first-pass success of hyperangulated blades subgroup with sensitivity analysis (Nirenjen 2023 excluded) (relative risks; random-effects, 95% CI)

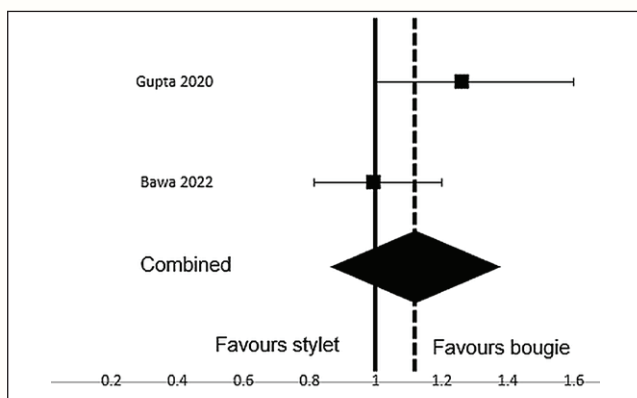


Figure 3. Forest plot: first-pass success of Macintosh-type blades subgroup (relative risks; random-effects, 95% CI)

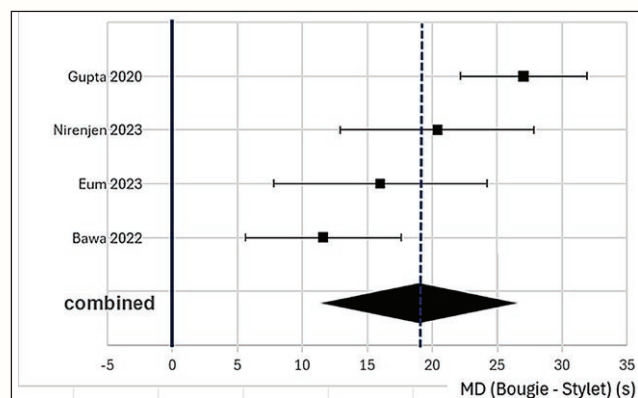


Figure 4. Forest plot: time to intubation (mean difference; random-effects, 95% CI)

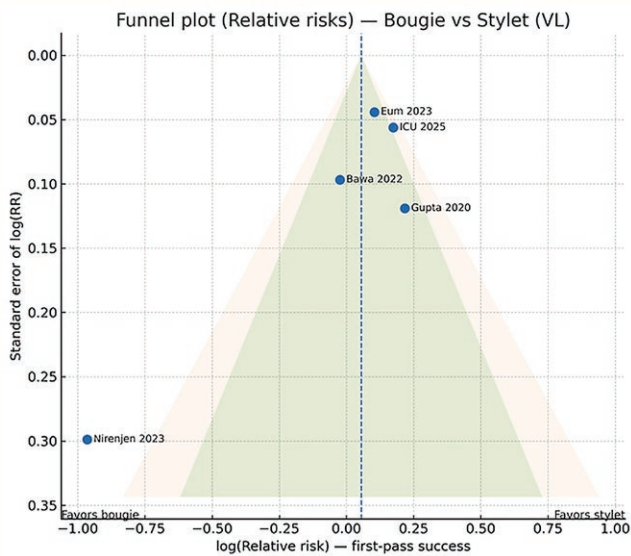


Figure 5. Funnel plot: first-pass success

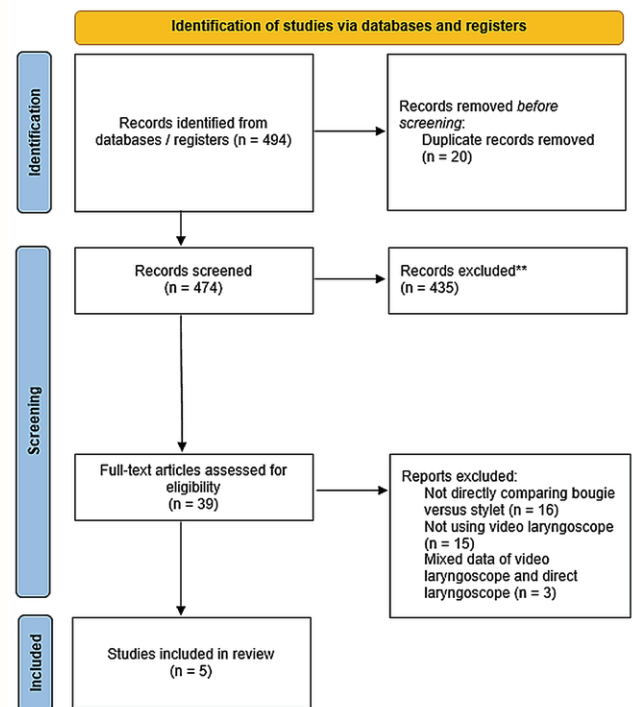


Figure 6. PRISMA flow chart

Table 1. Main baseline characteristics of included studies

Study	Design	Setting	Country	Population	Skills of operators	VL blade used	Intervention (N)	Control (N)
Bawa 2022	RCT	OR	India	Adult patients undergoing elective or emergency surgery	Resident anaesthetists >12 months experiences	C-MAC Macintosh	Intubation with bougie (N=50)	Intubation with stylet (N=50)
Eum 2023	RCT	OR	Korea	Adult patients undergoing elective surgery	Skilled consultant anaesthetists	Hyperangulated VL (Glidescope)	Intubation with bougie (N=83)	Intubation with stylet (N=83)
Gupta 2020	RCT	OR	India	Adult patients undergoing elective surgery	Not mentioned	C-MAC Macintosh	Intubation with bougie (N=20)	Intubation with stylet (N=20)
Nirenjen 2023	RCT	OR	Italy	Adult patients with cervical immobility undergoing elective surgery	Skilled anaesthetists	Hyperangulated VL (C-MAC D-blade)	Intubation with bougie (N=24)	Intubation with angled stylet (N=24)
ICU 2025	RCT	ICU	Spain	Adult patients undergoing intubation in ICU	Consultant anaesthetists or residents >24 months experiences	Hyperangulated VL (CC-MAC D-blade)	Intubation with flexible-tip bougie (N=70)	Intubation with stylet (N=70)

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Table 2: First pass success data of included studies

Study	Bougie		Stylet					
	Events	Total	Events	Total	RR	95% CI low	95% CI high	Weight (%)
Gupta 2020	20	20	16	20	1.24	0.984	1.569	18.2
Nirenjen 2023	3	24	21	24	0.38	0.212	0.684	5.7
Eum 2023	81	83	73	83	1.11	1.018	1.21	28.2
Bawa 2022	40	50	41	50	0.98	0.807	1.18	21.1
ICU 2025	69	70	58	70	1.19	1.065	1.328	26.8
Total (95%CI)	218	246	209	247	1.06	0.905	1.234	100

Table 3: Time to Intubation data of included studies

Study	Bougie (N)	Stylet (N)	MD (s)	95% CI low (s)	95% CI high (s)	Weight (%)
Gupta 2020	20	20	27	22.2	31.9	27.5
Nirenjen 2023	24	24	20.4	12.9	27.8	23.9
Eum 2023	83	83	16	7.8	24.2	22.7
Bawa 2022	50	50	11.6	5.6	17.6	26
Total	177	177	18.9	11.4	26.5	100

References

- Driver BE, Semler MW, Self WH, Ginde AA, Trent SA, Gandotra S, et al. Effect of use of a bougie vs endotracheal tube with stylet on successful intubation on the first attempt among critically ill patients undergoing tracheal intubation: a randomized clinical trial. *JAMA*. 2021 Dec 28;326(24):2488–97. doi: 10.1001/jama.2021.22002. PMID: 34879143; PMCID: PMC8655668.
- Chashamjot Bawa M, Raina J, Dureja M, Singh A, Yadav N, Kumar A. Intubation Performance with Stylet and Preloaded Bougie for Rapid Sequence Intubation in Patients undergoing General Anaesthesia: A Randomised Clinical Trial. *J Clin Diagn Res*. 2022 Jul;16(7):UC15–UC19. doi: 10.7860/JCDR/2022/55146.16586
- Driver BE, Prekker ME, Klein LR, et al. Effect of Use of a Bougie vs Endotracheal Tube and Stylet on First-Attempt Intubation Success Among Patients With Difficult Airways Undergoing Emergency Intubation: A Randomized Clinical Trial. *JAMA*. 2018 Jun 5;319(21):2179–89. doi: 10.1016/j.jemermed.2018.06.026
- Sheu YJ, Yu SW, Huang TW, Liu FL, Lin YK, Tam KW. Comparison of the efficacy of a bougie and stylet in patients with endotracheal intubation: a meta-analysis of randomized controlled trials. *J Trauma Acute Care Surg* [Internet]. 2019 May 1;86(5):902–8. Available from: <https://pubmed.ncbi.nlm.nih.gov/30741881/>
- Gupta S, Thakur JR, Lega A, Monga T. A Prospective Observational Study Comparing Three Different Techniques of Intubation Using C-Mac Video Laryngoscope. *Indian J Public Health Res Dev*. 2020 Feb;11(2)
- Tollman, J., Ahmed, Z. Efficacy of tracheal tube introducers and stylets for endotracheal intubation in the prehospital setting: a systematic review and meta-analysis. *Eur J Trauma Emerg Surg* 48, 1723–1735 (2022). <https://doi.org/10.1007/s00068-021-01762-5>
- Eum D, Ji YJ, Kim HJ. Comparison of the success rate of tracheal intubation between stylet and bougie with a hyperangulated videolaryngoscope: a randomised controlled trial. *Anaesthesia*. 2024 Jun;79(6):603–10. doi: 10.1111/anae.16202. Epub 2023 Dec 19. PMID: 38114306
- S. Falcetta, L. Pecora, M. Borioni, A. Montozzi, A. Carsetti, M. Sorbello, R. Cataldo, I. Di Giacinto, E. Cerutti, A. Donati, Bougie-assisted C-MAC video laryngoscope versus C-MAC video stylet for awake endoscopic intubation in anticipated difficult airways: A randomized controlled trial, *Trends in Anaesthesia and Critical Care*, Volume 50, 2023, 101258, ISSN 2210-8440, <https://doi.org/10.1016/j.tacc.2023.101258>.
- Thevar Manoharan NS, Varghese N, Krishna Bhat RR. Comparison between stylet and bougie with the C-MAC D-blade in cervical simulated immobility. A prospective randomized controlled trial. *Colomb. J. Anesthesiol.* [Internet]. 2023 Mar. 3 [cited 2025 Apr. 26];51(2). Available from: <https://www.revcolanest.com.co/index.php/rca/article/view/1061>
- Taboada M, Cariñena A, Estany-Gestal A, et al. Flexible-tip bougie vs stylet for tracheal intubation with a hyperangulated videolaryngoscope in critical care: a randomised controlled trial. *Anaesthesia*. 2025;80:790–798. doi:10.1111/anae.16574.
- Driver B, Dodd K, Klein LR, Buckley R, Robinson A, McGill JW, Reardon RF, Prekker ME. The Bougie and First-Pass Success in the Emergency Department. *Ann Emerg Med*. 2017 Oct;70(4):473–478.e1. doi: 10.1016/j.annemergmed.2017.04.033
- Von Hellmann R, Fuhr N, Maia IWA, Gerber D, Pedrollo D, Bellolio F, Oliveira J E Silva L. Effect of Bougie Use on First-Attempt Success in Tracheal Intubations: A Systematic Review and Meta-Analysis. *Ann Emerg Med*. 2024 Feb;83(2):132–144. doi: 10.1016/j.annemergmed.2023.08.484

TRENDS OF CULTURED PATHOGENS

Prevalence and Antibigram of Respiratory Pathogens, 2021-2025

Patrick Tsoi, Senior Medical Technologist

Irene Cheung, Medical Technologist

Dr PL Ho, MBBS, MD, MRCP, FRCPath, FRCPA, FIDSA, FHKCPATH, FHKAM

Background Respiratory tract specimen culture is commonly performed to aid in the diagnosis and management of patients with lower respiratory tract infections. Expecterated sputum is the most commonly obtained specimen, whereas invasive specimens—including bronchial aspirates and bronchoalveolar lavage—are usually reserved for patients with specific indications.

Objective This study aimed to evaluate the prevalence of potential pathogens from culture of respiratory specimens and to identify trends in antimicrobial susceptibility patterns among the most frequently isolated organisms.

Method Culture results from lower respiratory tract specimens collected between 2021 and 2025 were reviewed in accordance with CLSI guidelines (1,2). After de-duplication, a total of 4,820 lower respiratory tract specimens (4,239 sputum, 545 BAL/bronchial aspirates, and 36 tracheal aspirates) were included. The prevalence of potential respiratory pathogens was analysed, and antimicrobial susceptibility patterns for the most frequently isolated bacteria were assessed using the first isolate per patient per year method. Culture positivity was defined as the isolation of one or more potential respiratory pathogens. *Streptococcus pyogenes* isolated from upper respiratory tract specimens (throat swab and tonsillar samples) was additionally included in the susceptibility pattern analysis. Results for penicillin (IV), amoxicillin, amoxicillin-clavulanic acid, and ceftriaxone against *Streptococcus pneumoniae* were interpreted using nonmeningitis breakpoints (2). Susceptibility levels were graded as very high (>90%), high (70%–90%), moderate (50%–69%), and low (<50%). Chi square tests were used for comparison of proportions.

Results

- Overall, the culture positivity rates for sputum, tracheal aspirates, and bronchial samples were 36%, 28%, and 25%, respectively. Among positive cultures, the proportions yielding one, two, three, and four organisms were 28%, 6%, 0.8%, and 0.2%, respectively. Sputum culture positivity rates were higher in patients aged >70 years (44%) and 61–70 years (42%) than in those aged 51–60 years (30%), 18–50 years (31%), and 0–17 years (34%) ($P < 0.01$). The numbers of tracheal aspirate and bronchial samples were too small for subgroup analysis.
- Age-related variations in the distribution of the most prevalent organisms were observed (Figure 2). *Haemophilus influenzae*, *Moraxella catarrhalis*, *Staphylococcus aureus*, and *Streptococcus pyogenes* were more common among children, whereas *Klebsiella pneumoniae* and *Pseudomonas aeruginosa* were most frequently isolated in older adults.
- Amoxicillin-clavulanate (a first-line antibiotic) and ceftriaxone retained high susceptibility rates against the majority of respiratory pathogens (Table 1). For *Streptococcus pneumoniae*, 46% of isolates were intermediate and 5% were resistant to oral penicillin V. Although 62% of *Haemophilus influenzae* isolates exhibited amoxicillin-clavulanate MICs above the epidemiological cutoff (0.5/0.25 µg/mL), the overall susceptibility rate to the combination remained 81% (Figure 3 and Table 1).
- All *Streptococcus pyogenes* (i.e. Group A Streptococcus) isolates remained susceptible to first-line agents, including penicillin V, amoxicillin, and cephalexin. In contrast, macrolide susceptibility (clarithromycin, azithromycin) is low for *Streptococcus pneumoniae* and *Streptococcus pyogenes*, and moderate for *Haemophilus influenzae* and MRSA (Table 1).
- In *Haemophilus influenzae*, susceptibility to clarithromycin, cefuroxime, and amoxicillin-clavulanate was significantly lower in the 0–17 years age group than in adult age group (≥ 18 years): 63% vs. 70% ($P < 0.01$), 57% vs. 70% ($P = 0.02$), and 73% vs. 83% ($P = 0.03$), respectively. Due to the small sample size, susceptibility rates for the other organisms were not compared by age group (Table 1).

TRENDS OF CULTURED PATHOGENS

Discussion

- Respiratory specimens are susceptible to contamination by commensal oral flora, which frequently includes potential respiratory pathogens. Therefore, the recovery of an organism in culture does not necessarily indicate that it is the causative agent of infection. Proper interpretation requires an assessment of the extent of growth (scanty, moderate, or heavy), the presence of white blood cells and oral squamous epithelial cells (as indicators of contamination by oral commensal flora) in the specimens, along with clinical correlation and consideration of recent antibiotic exposure.
- *Pseudomonas aeruginosa* mainly causes respiratory tract infections in patients with underlying lung disease. *Acinetobacter* and *Stenotrophomonas* are primarily hospital-associated organisms that can sometimes cause infections in patients receiving assisted ventilation.
- The analysis likely underestimated the prevalence of *Streptococcus pneumoniae*, as this organism is fastidious and culture is known to have poor sensitivity. In adults, the urinary antigen test, which is available upon request, is a method with good sensitivity and excellent specificity for diagnosis of pneumococcal pneumonia (3). For *Streptococcus pneumoniae*, reduced susceptibility to penicillin is common (~50% of isolates, Figure 3). Therefore, high-dose oral amoxicillin (or the amoxicillin component in Amoxicillin-clavulanate, e.g. oral 1g twice daily for adult) or IV Amoxicillin-clavulanate (standard dose, e.g. 1.2 g Q8H for adult) is required to ensure reliable coverage (4,5).
- In *Haemophilus influenzae*, resistance to amoxicillin is commonly mediated by both beta-lactamase production and modification of the bacterial target (such as PBP3). The clavulanate component in Augmentin (amoxicillin-clavulanate) can reverse only beta-lactamase-mediated resistance mechanisms, not those mediated by target modification. Based on currently available clinical data and pharmacokinetic/pharmacodynamic (PK/PD) studies, high-dose amoxicillin-clavulanate (e.g., oral 875 mg amoxicillin in 1g Augmentin preparation given twice daily for adults) should remain effective against isolates categorized as susceptible (6).
- Fluoroquinolones, including ciprofloxacin and levofloxacin, have the potential to cause serious adverse effects and should generally be avoided (4). Their use in respiratory tract infection may also delay the diagnosis of tuberculosis and contribute to the development of drug-resistant tuberculosis (4).
- It is important to note that some bacterial pathogens (e.g., *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, *Legionella pneumophila*, *Burkholderia pseudomallei*, *Mycobacterium tuberculosis*, *Bordetella pertussis*) that can cause respiratory tract infections are not recovered by routine culture methods. If these organisms are suspected, diagnostic PCR assays or a urinary antigen test (for *Legionella*) can be arranged with the laboratory.

Figure 1. Sputum culture positive rate by age group, 2021-2025

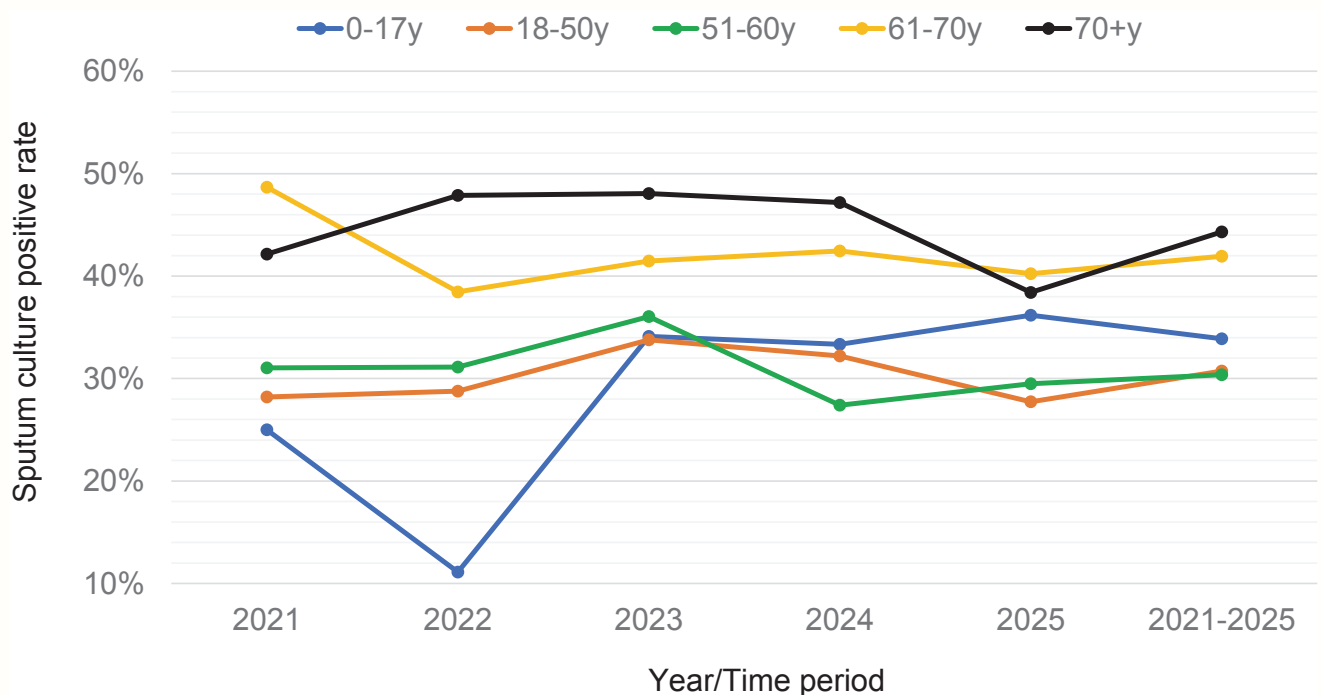
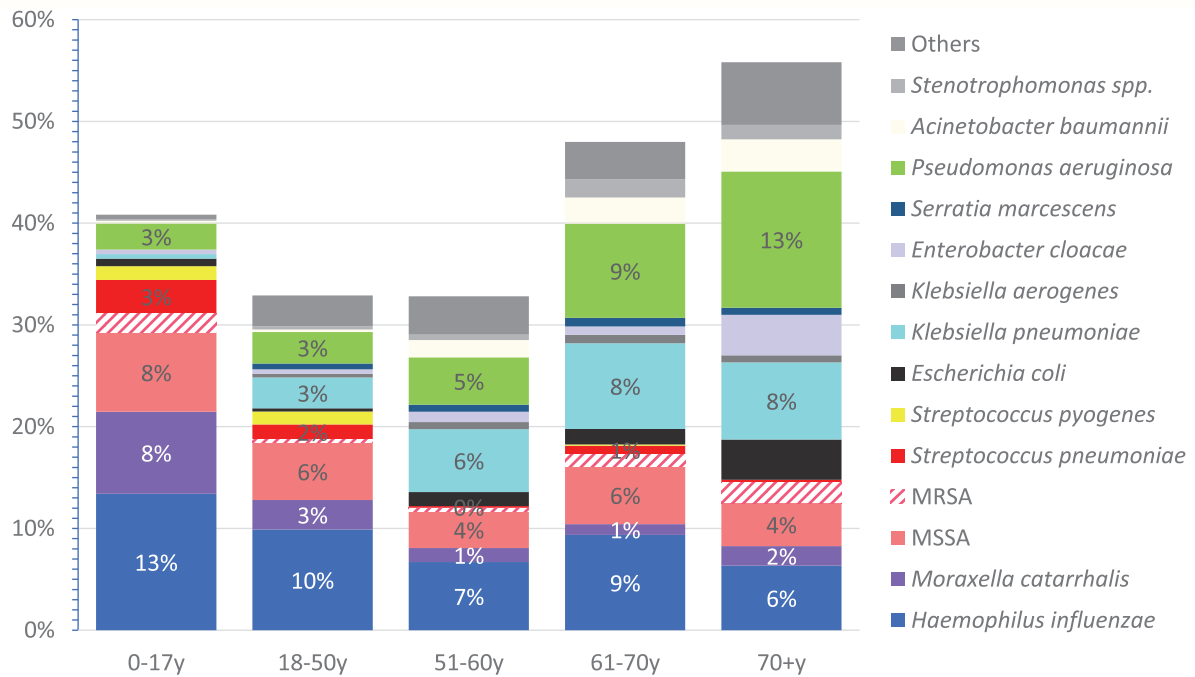


Figure 2. Prevalence of organisms from culture of lower respiratory specimens, 2021-2025



Note: The percentage of specimens with the indicated organism is shown. More than one organism was recovered from some specimens. MSSA, methicillin/oxacillin-sensitive *Staphylococcus aureus*; MRSA, methicillin/oxacillin-resistant *Staphylococcus aureus*

Figure 3. MIC distribution of *Haemophilus influenzae*, *Moraxella catarrhalis* and *Streptococcus pneumoniae*

Number of isolates with indicated MIC (µg/ml), by organism and antibiotic					
	<i>H. influenzae</i> (n=433)	<i>M. catarrhalis</i> (n=143)	<i>M. catarrhalis</i> (n=143)	<i>S. pneumoniae</i> (n=57)	<i>S. pneumoniae</i> (n=57)
MIC (µg/ml)	Amoxicillin-clavulanate	Cefuroxime	Levofloxacin	Penicillin	Ceftriaxone
0.008				4	
0.012				10	
0.016			2	7	20
0.023			9	1	2
0.032			54	2	1
0.047			59	4	2
0.064	2		16		2
0.094	2		1	4	4
0.125		1	1	3	3
0.19	3	1		2	
0.25	12	1		2	2
0.38	23	2			7
0.5	38	3		6	9
0.75	53	8	1	4	1
1	67	23		5	1
1.5	55	66			1
2	92	27		3	2
3	21	10			
4	33	1			
6	15				
8	7				
≥16	10				

Susceptible	Susceptible (high dose)	Intermediate	Resistant
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TRENDS OF CULTURED PATHOGENS

Table 1. Susceptibility of respiratory pathogens from lower respiratory tract specimens, 2021-2025

Agent	<i>Streptococcus pneumoniae</i> (n=57)	<i>Streptococcus pyogenes</i> (n=207)	MSSA (n=292)	MRSA (n=62)	<i>Haemophilus influenzae</i> (n=433)	<i>Moraxella catarrhalis</i> (n=143)	<i>Klebsiella pneumoniae</i> (n=309)	<i>Pseudomonas aeruginosa</i> (n=372)
Penicillin V (oral)	49%	100%		0%				
Penicillin (IV)	100%	100%	29%	0%				
Ampicillin		100%	29%	0%	41%	0%	0%	
Amoxicillin	95%	100%	29%	0%	41%	0%	0%	
Amoxicillin-clavulanate	95%	100%	100%	0%	81%	100%	91%	
Cefazolin	^		100%	0%				
Cephalexin	^	100%	100%	0%				
Cefuroxime	^	100%		0%	67%	100%	90%	
Ceftriaxone	95%	100%	100%	0%	100%	100%	95%	
Ceftazidime	^	^	^	0%				97%
Cefepime				0%				98%
Piperacillin-tazobactam				0%				95%
Ertapenem				0%			100%	
Imipenem				0%			100%	
Meropenem				0%				98%
Erythromycin	26%	30%	87%	58%				
Clarithromycin	26%	30%	87%	58%	69%			
Azithromycin	26%	30%	87%	58%				
Clindamycin		36%						
Cotrimoxazole	54%				53%		93%	
Tetracycline	30%		79%	60%				
Ciprofloxacin	^	^	^	^			86%	90%
Levofloxacin	98%	93%	93%	48%	99%	100%	85%	87%
Vancomycin	100%	100%	100%	100%				

% susceptible	>90% dose dependent	>90%	70%-90%	50%-69%	<50%	Intrinsic resistance	^Limited activity
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References

1. CLSI. Analysis and Presentation of Cumulative Antimicrobial Susceptibility Test Data, 5th ed, CLSI guideline M39. Clinical and Laboratory Standards Institute; 2022.
2. CLSI. Performance Standards for Antimicrobial Susceptibility Testing. 35th ed. CLSI supplement M100. Clinical and Laboratory Standards Institute; 2025.
3. Chan KF, Ma TF, Fang H, Tsui WK, Ho JC, Ip MS, Ho PL. Changes in the incidence, viral coinfection pattern and outcomes of pneumococcal hospitalizations during and after the COVID-19 pandemic. *Pneumonia* (Nathan). 2025;17(1):9.
4. PL Ho, TC Wu, Sandy KY Chau, Jason KW Fong, Leo Lui, David C Lung, Anthony R Tam, Tommy HC Tang (ed). 2025. Reducing bacterial resistance with IMPACT, 6th edition, Hong Kong.
5. DC Lung, DSY Lam, E Chan, et al. Practice Recommendations for Management of Community acquired pneumonia in children. *HK J Paediatr* (new series). 2016;21:178-193.
6. U.S. Food and Drug Administration. (2025). FDA rationale for recognition decision: Amoxicillin and clavulanate against *Haemophilus influenzae*. U.S. Department of Health and Human Services. Retrieved August 14, 2026, from <https://www.fda.gov/drugs/development-resources/fda-rationale-recognition-decision-amoxicillin-and-clavulanate-against-haemophilus-influenzae>.

NEWS & EVENTS

Award Recognition

Headline No.1 Awards 2026: Editor's Choice – Excellence in Precision Treatment Award (28 August 2026)

We are honoured to receive Headline Daily's 'No.1 Editor's Choice - Excellence in Precision Treatment Award' (No.1 編輯之選 – 卓越精準治療大獎). This recognition highlights Union Oncology Centre (UOC)'s commitment to clinical excellence through continuous upgrades to advanced dynamic navigation technology. Coupled with our dedicated Ladies Area and all-female radiation therapy team, UOC seamlessly integrates state-of-the-art precision medicine with compassionate, patient-centred care to support cancer patients every step of the way.



Post-Event Highlight

UH x Sha Tin DHC Express: Hearing Health Talk (13 August 2026)

In collaboration with Shatin District Health Centre Express, we hosted the community health talk 'Hearing is Happiness: Ear Care and Communication Tips for Seniors', attracting more than 60 participants. Our Audiologist, Dr Yu Ka Yin, Joannie, shared practical tips on recognising early signs of hearing loss, managing hearing impairment, and adopting daily habits to help delay age-related hearing decline. The event provided participants with practical knowledge on maintaining hearing health and supporting effective communication in daily life, reinforcing Union Hospital's commitment to community health education and preventive care.



Hospital Update

FOLLOW US

More Ways to Connect with Us

We continue to strengthen our digital presence and connect with the community through our social media platforms. Since officially launching our Facebook and Instagram channels in June 2026, we have been sharing health information, hospital updates and community activities with a wider audience. Our WeChat Official Account also serves as an important channel for health education, where we regularly share health articles and respond to public enquiries. We invite you to follow our social media platforms and stay connected with us for the latest updates from Union Hospital.



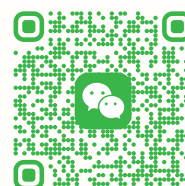
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New Clinical Sessions

Minimally Invasive Centre		
Booking & Enquiry: 2608 3383		Time Schedule
Cardiothoracic Surgery Dr Cheng Wai Yeung, Rechar	Mon	09:00 – 13:00
	Tue	16:30 – 18:00
	Thu	15:00 – 18:00
	Sat	09:00 – 13:00

Specialty Clinic		
Booking & Enquiry: 2608 3222		Time Schedule
Obstetrics & Gynaecology Dr Kou Kam On	Fri	09:00 – 10:00
	Mon	15:00 – 18:00

Plastic and Aesthetic Multidisciplinary Centre		
Booking & Enquiry: 2608 3211		Time Schedule
Plastic Surgery Dr Cheung Wing Yung	Wed	14:00 – 18:00
	Fri	10:00 – 13:00

Union Reproductive Medicine Centre (Tsim Sha Tsui)		
Booking & Enquiry: 3126 1623		Time Schedule
Dr Chow Man Kei, Anita	Mon	09:00 – 13:30 15:30 – 17:00
	Tue	09:00 – 14:00
	Thu	09:00 – 13:30 15:30 – 17:30
	Fri	10:00 – 12:30
	Sat	09:00 – 12:00
	Wed	10:00 – 13:00 14:00 – 17:00
Dr Lau Tze Kin	Mon	09:30 – 12:00
	Tue	09:30 – 12:00
	Wed	09:30 – 11:30
	Thu	09:30 – 12:00
	Fri	09:30 – 12:30
	Sat	08:00 – 11:30
Dr Lum Nga Lai, Peggy	Mon	11:00 – 12:30
	Tue	08:00 – 09:00
	Wed	11:00 – 13:00
	Thu	09:00 – 13:00
	Fri	11:00 – 13:00
	Sat	09:00 – 13:00
Dr Mao Kenneth	Mon	09:00 – 12:00 13:00 – 16:00
	Tue	09:00 – 11:00
	Fri	09:00 – 14:00
Dr Tung Hiu Fong	Tue	10:00 – 15:30
	Wed	10:00 – 13:00 14:30 – 17:30
	Fri	14:30 – 17:30
Dr Chan Yuen Mei	Mon	10:00 – 13:00
	Thu	15:00 – 17:30
	Thu	10:00 – 13:00
	Sat	10:00 – 13:00
Dr Li Yau Chung	Mon	10:00 – 13:00
	Thu	15:00 – 17:30
	Thu	10:00 – 13:00
	Sat	10:00 – 13:00
Dr Sin Wing To, Angela	Mon	09:00 – 13:00 14:00 – 18:00
	Wed	09:00 – 13:00 14:00 – 17:00
	Fri	09:00 – 13:00 14:00 – 18:00
Dental Surgeon Dr Esther Kong	Tue	09:00 – 13:00 14:00 – 17:00
	Thu	09:00 – 13:00 14:00 – 18:00
	Sat	09:00 – 13:00 14:00 – 18:00
Dental Surgeon Dr Leung Ka Ming, Philip	Tue	09:00 – 13:00 14:00 – 17:00
	Thu	09:00 – 13:00 14:00 – 18:00
	Sat	09:00 – 13:00 14:00 – 18:00
Specialist in Orthodontics Dr Cheuk Chun Yu, Godwin	Sat	15:00 – 18:00*

*Will be on duty on alternate weeks

Union Hospital Polyclinic (Tsim Sha Tsui)		
Booking & Enquiry: 2375 3323		Time Schedule
Cardiothoracic Surgery Dr Cheng Wai Yeung, Rechar	Wed	10:00 – 13:00
	Fri	10:00 – 13:00

Union Hospital Polyclinic (Tsim Sha Tsui) Dental Centre		
Booking & Enquiry: 2986 1166		Time Schedule
Dental Surgeon Dr Esther Kong	Tue	09:00 – 13:00 14:00 – 18:00
	Thu	09:00 – 13:00 14:00 – 18:00
	Wed	09:00 – 13:00 14:00 – 18:00
	Fri	09:00 – 13:00 14:00 – 18:00
Dental Surgeon Dr Leung Ka Ming, Philip	Tue	09:00 – 13:00 14:00 – 18:00
	Thu	09:00 – 13:00 14:00 – 18:00
	Wed	09:00 – 13:00 14:00 – 18:00
	Fri	09:00 – 13:00 14:00 – 18:00

Regular Meetings

Meeting :	X-Ray Meeting	Mortality and Morbidity Meeting
Date :	14 October 2026 (Wednesday)	11 November 2026 (Wednesday)
Time :	8:30am – 9:30am	8:30am – 9:30am
Co-ordinator:	Dr CHAN Chi Sang, James Head, Department of Medical Imaging, Union Hospital	Dr YIU Ying Chang, Raymond Consultant in General Surgery, Union Hospital
Venue:	Training Room, 8/F, MIC, Hospital Building, Union Hospital	
Booking & Enquiry:	2608 3160 (Quality Assurance and Training Department)	

New Clinical Members

Please extend a warm welcome to the following health professionals joining our clinical team!



Dr Yang Xianyi, Timothy
Consultant in Anaesthesiology



Dr Kou Kam On
Consultant in Obstetrics & Gynaecology



Connect with Union Hospital on LinkedIn

Union Hospital's official LinkedIn page has been growing steadily, serving as a hub to share updates on our services, events, and achievements. We invite you to follow us to stay connected and support us by liking and sharing our posts. Join us in building a vibrant LinkedIn community that reflects Union Hospital's commitment to providing compassionate, reliable healthcare. Scan the QR code to follow — and don't forget to tag us in your posts!



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