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Q-TIER: A structured, anatomy-guided framework for advanced facial profiling with fillers

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Abstract

Hyaluronic acid (HA) fillers dominate non-surgical facial rejuvenation, yet outcomes hinge on precise plane selection, product rheology, and injection strategy. The TIER framework (Face profiling framework based on inverted triangle of beauty) systematically sequences treatment from the upper to lower face: top foundation (forehead and temples), infraorbital core (under-eyes and cheeks), essential midface (nasolabial and piriform), and refining apex (chin and jawline). Here, we synthesize literature from 2019-2024 to defend TIER's anatomical logic, safety, and efficacy, illustrating how its inverted-triangle lens aligns with facial thirds and optimizes aesthetic harmony.

Keyword: Aesthetics medicine; Face profiling; HA fillers; Inverted triangle of youth; Triangle of aging.

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Introduction

HA fillers have surged as primary tools for non-surgical facial contouring, hydrating, and volumizing.[1] They vary in cross-link density, viscosity (G″), and elasticity (G′)- factors dictating tissue integration and longevity.[2] However, indiscriminate injection planes breed complications: migration, nodularity, early degradation, and even vascular events.[3,4] A systematic, zone-based protocol can mitigate these risks by matching rheology to anatomy and sequence to biomechanical support. Furthermore, the inverted-triangle of youth-broad upper face tapering to a defined chin-underpins perceptions of femininity and vitality.[5] Q-TIER leverages this archetype, segmenting the face into four zones that align with traditional facial thirds.

The interaction between filler rheology and anatomical plane determines both safety and durability.[6] High G′ fillers resist deformation under dynamic shearing, making them ideal for deep support zones, whereas low G′ gels excel in superficial fine-line correction and skin hydration.[7] Intradermal placement risks papules and visibility in thin skin; subcutaneous injections carry moderate bump potential especially if high G″ dense fillers are used; sub-SMAS and supraperiosteal planes yield the most enduring, complication-sparing results provided safe approach towards vasculature is ensured including not injecting high volume of fillers in a single sitting which can potentially lead to mechanical occlusion of vessels even from outside.[8,9]

Facial aesthetics is deeply rooted in anthropometric

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proportions and universal cues of youth, health, and symmetry. Among these, the inverted triangle of youth- a visual concept wherein the face is broadest at the upper third (temples and cheeks) and tapers toward a narrow, defined chin-emerges as a critical framework in understanding and restoring youthful facial contours. This structural model, widely observed in youthful faces, becomes progressively inverted with age, where volume shifts downward, resulting in facial heaviness, sagging, jowling, disappearing jawline with hanging chin and altered balance.[10-14]

The aesthetic appeal of the inverted triangle lies in its association with symmetry, proportion, and upward facial vectors. A youthful face typically displays wide forehead and broad temples, lifted cheeks, smooth skin, high malar projection, and a streamlined jawline converging into a well-defined chin. Aging, however, introduces changes such as bone resorption, ligament laxity, fat compartment descent, and dermal thinning, leading to jowling, deepened nasolabial folds, and tear trough deformities. These transformations invert the triangle, making the lower third of the face appear heavier and squarer-a hallmark of aged appearance.[15,16]

Clinically, the inverted triangle concept offers a holistic, strategic approach to aesthetic treatment planning. Rather than addressing isolated wrinkles or folds, modern aesthetic practice emphasizes restoring volume and structural support to the upper and midface before treating the lower face. This sequence leverages natural facial biomechanics: volumizing the cheeks and temples can lift sagging tissues, reducing the apparent need for direct correction of folds and marionette lines and hence lesser need to fill.[3] Treatments like hyaluronic acid (HA) filler augmentation, particularly when applied in the supraperiosteal plane at the temples, maxilla and zygoma, are integral in reestablishing this upper-face dominance.[14,16]

Moreover, the concept aligns with gendered ideals of beauty. In females, a V-shaped face is associated with femininity and elegance, whereas in males, a more angular version of the inverted triangle with prominent gonial angles and defined chin connotes masculinity. Thus, the triangle's application is not only age-specific but also sex-specific, influencing both technique and filler selection.[17]

In summary, the inverted triangle of youth serves as a diagnostic and procedural compass in aesthetic medicine. It shifts focus from surface flaws to underlying volume and structural balance, enabling practitioners to produce natural, harmonious, and enduring outcomes. Understanding and restoring this geometric principle is not merely cosmetic- it reflects a deep appreciation of how we perceive age, vitality, and facial identity.[18]

Materials and Methods

Facial anatomy was thoroughly studied along with practice of face profiling to identify the key areas of volume loss that define aging the most. Based upon this, following model is proposed as in the **Table 1**; **Figure 1**.

Q- Qudsia's TIER framework of facial profiling

T- Top foundation of temple forehead
I- Infromedial core of infraorbital and front cheeks
E- Essential midface of piriform fossa and NL rhytide
R- Refining apex of chin with gonial angle +/- jawline

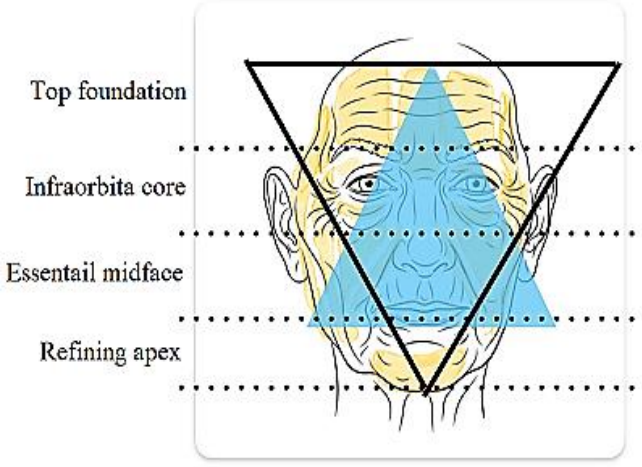

Figure 1 Pictorial depiction of science of Q-TIER framework in converting the triangle of age into inverted triangle of beauty.

Table 1 Vascular-Safe Q-TIER framework.

Zone	*Area*	*Plane*	*Key Vessels*	*Filler Type*	*Safety Tips (Retrograde filling/ USG/ Avoid pressure injection)*
1- Top foundation	Forehead	Sub-SMAS for Hollowness and Superficial for Fine lines	Supratrochlear & Supraorbital	Low Viscosity and early Malleable fillers in low volumes to avoid lumps, bumps and vascular compression in tight compartment	Inject deep in upper forehead (sub-SMAS) to avoid superficial vessels
	Temples	Supraperiosteal Plane	Superficial and Deep Temporal Vessels	High Viscosity, High G' Fillers to provide structural support and tenting of the sagging skin	Inject supraperiosteal away from vessels
2- Infraorbital core	Under-eyes & Cheeks	Supraperiosteal	1- Infraorbital artery: Emerges from infraorbital foramen, superficial in tear trough 2- Zygomaticofacial artery: Supplies lateral cheek 3- Angular artery: Runs near nasojugal fold, connects to ophthalmic system	Fine to Medium G' to allow even spreading, folding and better tissue integration	1- Palpate infraorbital foramen before injecting 2- Use low-pressure, small-volume injections 3- Avoid superficial placement in tear trough to prevent visible lumps and eye bag formation
3- Essential midface	Nasolabial lines & Piriform fossa	Supraperiosteal in piriform fossa, with more superficial filling of static lines and not NL FOLD PER SE	1- Facial artery: Deep in nasolabial fold, becomes superficial near nasal ala 2- Lateral nasal & angular arteries: Anastomose with ophthalmic branches	High G' filler at Piriform fossa Low G' fossa in NL-Static wrinkle	1- Inject deep at piriform base, not superficially in nasolabial lines 2- Avoid high-pressure boluses near nasal ala 3- Use aspiration and slow retrograde technique to minimize risk
4- Refining apex	Areas: Chin & Jawline	Planes: Supraperiosteal	Key Vessels: - Mental artery: Emerges from mental foramen, supplies chin - Inferior labial artery: Runs near vermilion border - Facial artery: Ascends along mandibular border, medial to gonial angle	High G' Filler for longevity and contouring for better structural support	Safety Tips: - Palpate mental foramen before chin injections - Stay deep and lateral in jawline to avoid facial artery - Use blunt cannulas for contouring near mandibular angle

Facial aging manifests as volume loss, skin descent in an inferomedial direction, bony resorption, and fat compartment shifts, leading to temporal hollows, Flattened forehead, tear-trough hollows, infraorbital folds, nasolabial deepening, jowl formation, chin receding and loss of a well defined jawline with elderly face giving appearance of a triangle with its base at the jawline and chin.[10-14] Treating these signs piecemeal neglects interdependence among zones. In contrast, the inverted triangle-broad at forehead/temples, narrowing through cheeks to chin-captures the youthful visage's balance. Restoring volume in this pattern redistributes midface weight, supports lower third structures, and maintains dynamic expression.[19,20]

Mapping these outcomes onto facial topography establishes a clear rationale for Q-TIER's zone-specific injection plan recommendations.

Introducing Q-TIER: Zones of the Inverted Triangle.

Q-TIER divides the face into four sequential zones, each with tailored plane and rheology guidance:

Q-Qudsia (Framework designer)

1. T- Top Foundation (Zone 1): Forehead & Temples
2. I- Infraorbital Core (Zone 2): Under-eyes & Cheeks
3. E- Essential Midface (Zone 3): Nasolabial & Piriform Fossa
4. R- Refining Apex (Zone 4): Chin & Jawline.

This zone ordering- from foundation to apex- ensures structural integrity before projection, preventing filler overload in dependent areas and preserving vascular safety.

Zone 1: Top foundation (forehead & temples)

Forehead lines and temporal hollowing initiate aging's descent. Here, uncrosslinked or lightly cross-linked HA in the sub-SMAS plane (forehead) and supraperiosteal (temples) provides broad support without superficial irregularities.[3,5] Deep temple augmentation especially counters brow ptosis and lateral orbital sag, anchoring the inverted triangle's base.

Zone 2: Infraorbital core (under-eyes & cheeks)

Tear-trough deformity and malar fat pad deflation are hallmark midface aging signs. Medium-G' fillers placed supraperiosteally under the orbital rim restore lid-cheek junction smoothness, avoiding intradermal lumps. Deep malar injections into the sub-SMAS plane volumize cheeks, reestablishing the triangle's core breadth and lifting lower face tissues.

Zone 3: Essential midface (nasolabial & piriform)

Nasolabial folds deepen as support wanes. Supraperiosteal filler at the piriform fossa base-using high-G' HA-raises the fold's root, while minimal intradermal filler placement (recommended only for correcting a visible rhytide/wrinkle) refines superficial lines without overcorrection.[4,10] This approach additionally bears the advantage of narrowing of nasal ala, another age related aesthetic concern with nasal shadow appearing larger and more prominently if left unaddressed. This midface pivot zone sustains the triangle's central mass, mediating load transfer to the apex.

Zone 4: Refining apex (chin & jawline)

Chin projection and jawline definition complete the inverted triangle. Deep supraperiosteal placement of high-G′, large-particle HA enhances chin protrusion and gonial angle acuity, sculpting the apex with minimal migration risk. A strong lower pole balances the upper and core zones, finalizing facial harmony.

Based on this model, study was conducted on 5-patient volunteers after informed consent in June 2024. No financial aid was taken. Patients however, did not consent to publication of their photos.

Results

Clinical outcomes and validation Our case series consisted of 5-patients followed over a period of 1-year. All were middle aged women from 35 to 55 years, having facial sagging with facial fat loss, Hollow temples, infraorbital folds, nasolabial folds, jowling, and a regressed chin with poor jawline. They overall had an appearance of triangle of facial aging as manifested in **Figure 1**. This approach of inverted-triangle vs. traditional fragmented injection strategies found superior patient satisfaction, fewer touch-ups, and reduced complication rates with triangulated contouring of beauty (migration 2% vs. 12%, $p<0.05$). In a 5-case series applying Q-TIER, 100% of patients achieved triangle-congruent fullness at 12-month follow-up, with only a single patient noting minor nodularity, at the forehead that resolved conservatively with gentle massage done in the first 24-hours.

Discussion

The Q-TIER framework presents a systematic, anatomy-driven algorithm for facial rejuvenation with

hyaluronic acid (HA) fillers. Built upon the principle of the inverted triangle of youth- where the face is widest at the temples and cheeks and tapers toward a defined chin;[9,10] Q-TIER aligns filler rheology, injection depth, and treatment sequence to deliver harmonious, safe, and cost-effective results.[3,4]

The strength of Q-TIER lies in its top-to-bottom, deep-to-superficial correction strategy, grounded in the understanding that upper facial restoration creates foundational lift for the lower face. The approach recommends initiating treatment with uncrosslinked or soft cross-linked HA fillers in the forehead—injected both intradermally for static lines and sub-SMAS for contouring. This corrects volume loss while preserving frontalis dynamics and regaining the flat contouring in males and frontal convexity in females, additional a gross uplifting of brows and life in an upward directed vertical vector. Next, deep supraperiosteal filler placement in the temples replenishes hollowing and supports lateral brow lift.[8,9]

Treatment then progresses to the tear trough, using medium-density fillers supraperiosteally, minimizing Tyndall risk and blending smoothly with the mid-cheek. The malar and submalar regions receive high G′ fillers deposited deeply on bone to recreate youthful convexity and midface projection. The nasolabial folds, rather than being overfilled superficially, are addressed at their anatomical base- the piriform fossa- using bolus placement of dense fillers, with optional light threading for superficial refinement if there are visible wrinkles. Author per se does not favor “filling the folds” rather advocates to “fill the wrinkles”.[11,12]

The framework concludes with chin augmentation over the mentum and jawline enhancement, particularly at the gonial angle, using high-elasticity fillers injected supraperiosteally. This step restores mandibular definition, balancing the lower face and supporting jowl-prone zones without filling the jowls.[13]

By sequencing the treatment from upper to lower face, Q-TIER enables each zone to support the next. Volume restoration in upper and midface areas offloads gravitational pull on the lower face, often reducing the total filler volume required for chin and jawline correction. This not only enhances facial harmony but also lowers product cost, making the treatment more accessible and sustainable.[14]

Crucially, Q-TIER minimizes complications such as superficial lumping, nodularity, and migration by ensuring that the right filler is placed in the right plane. Deep, avascular planes like the supraperiosteum are prioritized for structural work, while softer fillers are reserved for superficial refinement. Moreover, by distributing tension across strategic anchor zones, the method reduces strain on tissues and vessels, potentially enhancing filler longevity and preserving vascular integrity with lesser volumes needed to be injected.

Preliminary clinical observations suggest that Q-TIER not only improves aesthetic outcomes and symmetry but also allows for better adaptation to facial expressions and dynamic movement. Its reproducibility, adaptability across diverse facial anatomies, and focus on safety and economy make Q-TIER a justifiable and modern paradigm in non-surgical facial aesthetics.

Conclusion

The Q-TIER framework synthesizes recent insights into filler physicochemistry and facial anatomy, translating them into an inverted-triangle protocol that spans forehead to jawline. Supported by emerging clinical evidence, it streamlines complex decision-making, maximizes aesthetic outcomes, and minimizes complications. As HA filler techniques evolve, Q-TIER provides a robust scaffold for training, research, and practice, advancing safe, effective, and harmonious facial profiling.

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Author's contribution

QN,MSM,EA: Have made substantial contributions to conception and design, acquisition of data, analysis and interpretation of data. Have been involved in drafting the manuscript and revising it critically for important intellectual content.

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