W H Y T H I S R E P O R T

Clear aligner treatment can look digitally exact

while remaining clinically conditional.
For dentists offering clear aligner therapy, the digital setup is only the visible part of a much longer decision

chain. Before treatment starts, the clinician has to judge whether the planned root movements, skeletal

relationships, periodontal context, occlusal goals, restorative needs, and patient behavior make the case

appropriate for aligners. During treatment, the challenge becomes different: is a tracking problem caused by

inconsistent wear, an unrealistic movement, attachment or staging limitations, occlusal response, or a

treatment plan that needs to change?

The MDForLives survey follows that chain. It asks who is providing aligner treatment, how much clear-aligner

volume they manage, which movements feel least predictable, where pre-treatment scrutiny is highest, what

makes expectations difficult, what drives the next decision when a case stalls, how often refinements are

required, what most commonly leads to relapse, and what future technology respondents believe could

improve outcomes.

The resulting picture is not anti-digital. It is more clinically useful than that. Dentists see technology as part of

the solution, with AI-assisted planning and monitoring leading the future-development question. At the same

time, the strongest current signals sit in case selection, root control, compliance, refinement decisions, and

retention. Predictability appears to be a pathway property rather than a software feature.

Survey lens. MDForLives survey SGID 8979527 captured 56 survey records with an 82.1% completion rate across six countries: USA, UK, Canada, Italy, France, and Germany. Most closed clinical questions were answered by 50 respondents; the future-development question was answered by 49. Internal operational fields, required-text validation fields, after-survey fields, and the honeypot field are excluded from analysis. The hidden country-punching field is used only for geography metadata.

C L I N I C A L C O N T E X T

Digital planning improves visibility, but diagnosis,

biology, wear and retention still determine what

actually happens.

Current professional guidance describes clear aligners as one orthodontic option within a diagnosis-led

treatment plan. The British Orthodontic Society notes that aligners are commonly used for mild-to-moderate

problems and that severe crowding, extraction treatment, complex tooth movements, or jaw discrepancies

may require additional techniques. The American Association of Orthodontists describes near-full-time wear

as typical, which makes patient behavior inseparable from movement expression. The American Dental

Association emphasizes pre-treatment evaluation, radiographs, and ongoing professional oversight because

periodontal disease and other underlying problems can affect orthodontic results.

The research literature adds a movement-specific layer. A 2023 scoping review of clear-aligner effectiveness

reported that predictability varies by movement, with rotation, intrusion, and extrusion among the less

predictable categories. A 2023 Cochrane review on orthodontic retention reinforces that teeth tend to relapse

without retention. More recent AI reviews describe promising uses in segmentation, digital measurement,

treatment prediction, and remote monitoring, but also show that automation does not replace outcome

validation or clinical supervision.

External clinical context is provided for interpretation. MDForLives survey findings remain the source for all respondent percentages in this report.

E X E C U T I V E S U M M A RY

Six findings that show where clear aligner predictability becomes a clinical judgement problem.

INSIGHT 0 1

Retention is the clearest failure signal

72.0% identify fatigue or non-compliance with removable retainers
as the primary point of failure leading to post-treatment relapse.

INSIGHT 0 2

Pre-treatment root control deserves scrutiny

56.0% say root torque, angulation, and skeletal discrepancies require the most clinical scrutiny before aligner treatment.

INSIGHT 0 3

Root torque and bodily movement challenge predictability

50.0% include root torque or bodily space closure among the least predictable tooth movements with clear aligners.

INSIGHT 0 4

Refinement is a routine planning reality

46.0% estimate that 15–30% of their clear-aligner cases need at least one mid-course correction or refinement.

INSIGHT 0 5

Complexity drives expectation friction

38.0% say treatment limitations in complex cases are the factor that most commonly makes patient expectations difficult to manage.

INSIGHT 0 6

AI leads the future-development list

36.7% choose AI-assisted treatment planning and monitoring as the development most likely to improve predictability over the next three to five years.

01

P R A C T I C E P R O F I LE

Clear aligner care in this sample is largely being

delivered from general dental practice
80.0% identify as general dentists or GDPs.

CONTEXT

Clear aligner therapy is increasingly encountered outside specialist
orthodontic settings. That makes the professional mix relevant because the
same digital treatment platform may be used by clinicians with different
orthodontic training, case volumes, referral thresholds, and access to specialist support.

WHAT THE DATA SHOWS

General dentists or GDPs make up 80.0% of respondents. Other dental specialists account for 12.0%, specialist orthodontists for 6.0%, and academic or teaching dentists for 2.0%. The survey therefore reflects a predominantly general-dentistry view of clear aligner decisions rather than an orthodontist-only perspective.

THE INSIGHT

That audience mix helps explain why case selection, treatment planning access, and escalation appear repeatedly in the findings. A general dentist may be deciding not only how to execute an aligner plan, but whether the case belongs in their own scope, needs additional orthodontic input, or should be referred from the outset.

WHY IT M ATTERS

Professional guidance from the British Orthodontic Society stresses comprehensive assessment and notes that complex movements and skeletal problems may require other techniques. In a general-practice context, predictable care depends as much on knowing the limits of the selected case as on knowing the aligner workflow.

Primary professional role

80.0%

General Dentist /
GDP

12.0%

Other Dental
Specialist

6.0%

Specialist
Orthodontist

2.0%

Academic /
Teaching

02

C A SE V O L U M E

Most respondents manage modest aligner volumes,

so repeatable case selection matters more than

isolated expertise
44.0% initiate fewer than 10 clear-aligner cases per year.

CONTEXT

Annual case volume can shape how quickly a clinician recognizes common
tracking patterns, movement limitations, and refinement triggers. A dentist
initiating a handful of cases may encounter a difficult root movement or posterior bite change less frequently than a high-volume provider, even when the underlying clinical decision is the same.

WHAT THE DATA SHOWS

The largest group, 44.0%, initiates fewer than 10 clear-aligner cases per year. Another 32.0% report 10–25 cases, while 12.0% report 26–50 and 12.0% report more than 50. The distribution is therefore weighted toward lower and moderate annual volumes, with a smaller high-volume group.

THE INSIGHT

Predictability has to be supported by a workflow that works even when the clinician does not see the same problem every week. Structured pre-treatment checks, defined referral criteria, consistent tracking reviews, and a clear response to non-tracking can help turn experience into a repeatable process rather than relying on memory from prior cases.

WHY IT M ATTERS

This also raises the value of accessible specialist collaboration. One open response described an initial aligner plan that the dentist felt would have produced a poor result and difficulty obtaining orthodontic input. The issue was not the absence of a digital plan; it was the absence of timely clinical challenge to that plan.

Approximate clear-aligner cases initiated per year

<10 cases 44.0%

10–25 cases 32.0%

26–50 cases 12.0%

>50 cases 12.0%

03

M O VE M E N T P R E D I C TA B I L I TY

Root control and bodily movement are where the

digital target most often meets biomechanical resistance

50.0% include root torque or bodily space closure among the two least predictable movements.

CONTEXT

Clear aligner predictability is movement-specific. A sequence can look smooth
on screen while asking for different combinations of crown movement, root
control, intrusion, extrusion, rotation, anchorage, and occlusal change. The
clinical burden rises when the desired result depends on movements that are more difficult to express through removable plastic alone.

WHAT THE DATA SHOWS

Root torque or bodily space closure is selected by 50.0%, the highest response in this multiple-select question. Deep-bite opening or intrusion follows at 40.0%, premolar or canine derotation beyond 20 degrees at 38.0%, and anterior tooth extrusion at 34.0%. Because respondents could choose up to two movements, the percentages should be read as overlapping signals rather than a distribution that sums to 100%.

THE INSIGHT

The ranking is notable because it moves beyond “straightening teeth” and into root position, vertical control, and space mechanics. These are precisely the areas where under-expression can alter occlusion, restorative space, periodontal loading, or the stability of the planned endpoint. A refinement may correct some deviation, but repeated under-expression can signal that the mechanics or treatment modality need to change.

WHY IT M ATTERS

A 2023 scoping review similarly concluded that predictability varies by movement, with rotation, intrusion, and extrusion among the less predictable movements in the evidence base. The external literature and the survey are not identical in ranking, but they converge on the same practical point: the type of movement matters, and the digital prescription should be interpreted through biomechanics.

Tooth movements dentists find least predictable

Root torque / bodily
space closure

50.0%

Deep-bite opening /
intrusion

40.0%

Premolar / canine
derotation >20°

38.0%

Anterior tooth extrusion 34.0%

04

P R E- T R E AT M E N T S C R U T I N Y

Root position and skeletal relationships are where

dentists most want clinical certainty before they

commit to the aligner plan
56.0% select root torque, angulation, and skeletal discrepancies as the area requiring the
most scrutiny.

CONTEXT

Pre-treatment assessment is where predictability can be improved before any
aligner is manufactured. The clinician is deciding whether the movement is
biologically and mechanically reasonable, whether periodontal support is
adequate, whether occlusal or restorative constraints change the endpoint, and whether patient behavior is likely to support a removable-appliance plan.

WHAT THE DATA SHOWS

More than half, 56.0%, select root torque, angulation, and skeletal discrepancies. Periodontal biotype and bone levels and patient compliance or oral-hygiene reliability each receive 20.0%. Restorative space and occlusal interference is selected by 4.0%. The hierarchy makes root and skeletal analysis the dominant pre-treatment concern in this respondent group.

THE INSIGHT

The pattern connects directly to the movement-predictability result. Dentists are most cautious before treatment about the same broad domain that later feels least predictable: root position and complex movement. That alignment suggests the uncertainty is recognized early, even if digital planning can make the intended movement appear straightforward.

WHY IT M ATTERS

The low percentage for restorative and occlusal interference should not be read as evidence that these factors are unimportant. Open-ended responses include restorative-position uncertainty and posterior bite opening, showing that less frequently selected concerns can still become decisive in individual cases. A single-select question identifies the top scrutiny point, not every factor that deserves assessment.

Area requiring the most pre-treatment clinical scrutiny

Root torque / angulation /
skeletal discrepancies

56.0%

Periodontal biotype /
bone levels

20.0%

Compliance / oral-
hygiene reliability

20.0%

Restorative space /
occlusal interference

4.0%

05

EXPE C TAT I O N M A N A G E M E N T

The hardest expectation conversation is often

about the limits of the case, not the inconvenience

of the appliance
38.0% say treatment limitations in complex cases are the most common expectation-management challenge.

CONTEXT

Clear aligners are visually intuitive for patients: a sequence of trays appears to
offer a visible path from the starting position to the planned finish. That can
create a communication challenge when the clinical endpoint is less certain
than the animation. Wear time, duration, refinements, auxiliaries, and alternative treatment may all need to be discussed before the patient sees the digital setup as a promise.

WHAT THE DATA SHOWS

Treatment limitations in complex cases lead at 38.0%. The need for refinements or additional aligners follows at 24.0%, expected treatment time or wear requirements at 20.0%, and predictability of the final outcome at 18.0%. No single factor dominates completely, but complexity is the clearest signal.

THE INSIGHT

The result suggests that expectation-setting should be case-specific rather than limited to generic instructions about hours of wear. A patient may comply well and still need a refinement because a movement under-expresses. Another may need a different endpoint because of skeletal or periodontal constraints. A third may need referral or auxiliary mechanics. Explaining those possibilities before treatment can make later course correction feel like part of informed care rather than an unexpected failure.

WHY IT M ATTERS

Several open responses describe the consequences when expectations and clinical uncertainty collide: dissatisfaction with the position of one lateral incisor after multiple refinements, difficulty forecasting restorative tooth position, parents frustrated by limited progress in a teenager, and concern about speech leading a patient to remove aligners socially. Communication is therefore not only reassurance. It is a way of making uncertainty, responsibility, and possible plan changes explicit.

What most commonly makes expectations difficult to manage

38.0%

Complex-case
treatment limits

24.0%

Need for
refinements

20.0%

Treatment time /
wear

18.0%

Final-outcome
predictability

06

W H E N A C A SE STA L LS

Tracking loss should trigger a differential

diagnosis, because compliance and treatment-plan

revision are nearly tied
34.0% point first to inadequate wear or patient compliance; 32.0% point to revising the treatment plan or approach.

CONTEXT

When a clear aligner case stops progressing, the fastest explanation is often
“the patient is not wearing the trays.” The survey shows why that assumption
can be incomplete. Wear behavior is the largest single response, but the
overall pattern is divided among behavior, treatment planning, movement limitations, and unexpected clinical response.

WHAT THE DATA SHOWS

Inadequate aligner wear or patient compliance is selected by 34.0%. Need to revise the treatment plan or approach follows at 32.0%, limitations of the planned tooth movement at 24.0%, and unexpected clinical response or occlusal changes at 10.0%. The leading two responses differ by only two percentage points.

THE INSIGHT

That near tie changes the clinical conversation. A tracking problem can be patient-related, but it can also be a plan-related signal. Before ordering more aligners, the dentist may need to review wear history, tray fit, attachment integrity, achieved versus planned movement, interproximal reduction, occlusion, periodontal response, and whether the original goal remains realistic. The value of a refinement depends on fixing the cause, not merely restarting the sequence.

WHY IT M ATTERS

The open-ended cases make this distinction concrete. Respondents described inconsistent wear, inability to extrude a tooth, close-root-proximity teeth that did not rotate as intended, posterior bite opening, and an aligner company plan they felt required orthodontic input. Treating all of those scenarios as non-compliance would miss clinically different problems and lead to the wrong correction.

What most commonly drives the next clinical decision when treatment stalls

Inadequate wear / patient
compliance

34.0%

Revise treatment plan /
approach

32.0%

Limits of planned tooth
movement

24.0%

Unexpected clinical /
occlusal change

10.0%

07

R EF I N E M E N T B U R D E N

Refinements are common enough to plan for, but

not common enough to make the original plan irrelevant

46.0% place their refinement rate in the 15–30% range.

CONTEXT

A refinement can be a sensible response to biological variation and movement
under-expression. It can also become a hidden expansion of treatment
duration, chair time, laboratory workflow, and patient expectations if the possibility is not planned from the start. The question is therefore less “Are refinements good or bad?” and more “How often should the pathway expect them, and what triggers them?”

WHAT THE DATA SHOWS

The largest group, 46.0%, estimates that 15–30% of cases require at least one mid-course correction or refinement. Another 30.0% put the figure below 15%. At the higher end, 12.0% estimate 31–50% and 12.0% estimate more than 50%. The distribution shows meaningful variation across practices rather than a single shared refinement rate.

THE INSIGHT

For a patient, refinement can look like treatment taking longer than promised. For the clinician, it may be a controlled response to tracking loss, movement limits, occlusal change, or a modified endpoint. The expectation-management result helps explain why this matters: the need for additional aligners is the second most frequently selected source of expectation difficulty.

WHY IT M ATTERS

A useful refinement workflow therefore starts before refinement is needed. Patients can be told that the first series is one phase of a biological treatment rather than a guaranteed final sequence. Clinicians can define what constitutes acceptable tracking, when to rescan, when to modify attachments or staging, and when repeated refinement should trigger a different modality or specialist review.

Share of clear-aligner cases requiring at least one mid-course correction

30 46 12 12

<15% 15–30%
31–50% >50%

08

R ETE N T I O N A N D R EL A PSE

The biggest predictability problem may arrive

after the teeth reach the planned position
72.0% identify fatigue or non-compliance with removable retainers as the primary point of failure leading to relapse.

CONTEXT

Active aligner treatment often receives most of the planning attention, but
orthodontic stability is a separate phase. Teeth and supporting tissues
continue to adapt after movement, and long-term changes can occur even
after a technically successful finish. A predictable outcome therefore includes the retention pathway, not only the active-treatment endpoint.

WHAT THE DATA SHOWS

Removable-retainer fatigue or non-compliance is selected by 72.0%, far ahead of debonding or breakage of fixed retainers at 12.0%, unresolved muscular habits or functional factors at 12.0%, and late growth or occlusal settling at 4.0%. This is the most concentrated response distribution in the survey.

THE INSIGHT

The result reframes adherence. During active treatment, inadequate wear is one of several reasons a case may stall. After active movement, however, patient behavior becomes the dominant reported failure point. Retention education cannot therefore be delayed until the final appointment. The patient needs to understand from the start that the end of active aligners is a transition into maintenance, not the end of orthodontic responsibility.

WHY IT M ATTERS

A 2023 Cochrane review notes that teeth tend to relapse without retention, and the British Orthodontic Society states that retainers are required after aligner treatment. The survey adds the real-world friction: having a retainer is not the same as wearing it. Follow-up, replacement planning, fixed-retainer review where used, and realistic long-term instructions all contribute to stability.

Primary point of failure leading to post-treatment relapse

Removable-retainer
fatigue / non-compliance

72.0%

Fixed-retainer debonding
/ breakage

12.0%

Unresolved habits /
functional factors

12.0%

Late growth / occlusal
settling

4.0%

09

F U T U R E P R E D I C TA B I L I TY

Dentists expect AI to help first, but the future list is

really about seeing difficult movement earlier and

managing it better
36.7% choose AI-assisted treatment planning and monitoring as the most promising development over the next three to five years.

CONTEXT

The future-development question asks respondents to choose one lever most
likely to improve predictability and clinical outcomes. The options span
software intelligence, material science, better movement prediction, and
broader digital-clinical workflow. The responses therefore show where dentists think the next reliability gain may come from.

WHAT THE DATA SHOWS

AI-assisted treatment planning and monitoring leads at 36.7%. Improved aligner materials and biomechanics and better prediction of complex tooth movements each receive 24.5%. More advanced digital and clinical workflows receive 14.3%. The spread is meaningful: AI leads, but nearly two thirds select something other than AI.

THE INSIGHT

The pattern suggests that “more digital” is not a single solution. AI may help identify segmentation, staging, tracking deviation, or risk patterns earlier. Better materials may improve force delivery. Better movement models may make the setup more realistic. Workflow improvements may help clinicians act on deviations sooner. These levers address different parts of the predictability problem rather than competing for the same role.

WHY IT M ATTERS

A recent scoping review of AI in clear aligner therapy describes applications in segmentation, data integration, measurements, treatment prediction, and remote monitoring, while noting limited direct evaluation of commercial aligner software in the included studies. That is a useful boundary for interpreting the survey: respondents see AI as promising, but clinical outcome improvement still depends on validation, diagnosis, and what happens when the software and the mouth diverge.

Development most likely to improve predictability over the next 3–5 years

AI-assisted planning /
monitoring

36.7%

Improved materials /
biomechanics

24.5%

Better prediction of
complex movements

24.5%

Advanced digital / clinical
workflows

14.3%

O P E N R E S P O N S E L E N S

The case stories show why “poor tracking” is too broad a diagnosis for what dentists actually manage.
Dentists were asked to think of a particularly challenging clear-aligner case, describe the main clinical or patient-related
challenge, explain how it affected the outcome, and identify what change in case selection, planning, communication,
compliance, or retention could have made the greatest difference. Twenty responses were visible in the source report; a small
number were non-substantive, so the analysis below is qualitative rather than percentage-based.

The responses do not collapse into one story. Some describe patient wear behavior, including aligner removal for speech or social situations. Others describe movements that did not express as planned, such as extrusion or rotation. Several focus on case selection, treatment-planning support, or the need for earlier referral. Others highlight expectation management, restorative-position uncertainty, posterior bite opening, crowding with attachment loss and recession, or repeated refinements. Together they show that the same visible endpoint, a case that is not progressing as expected, can have very different causes.

Wear & compliance
Repeated references to inconsistent wear, poor cooperation, social removal of
aligners, and the need for clearer education or closer monitoring.

Movement limitations

Examples include teeth that would not extrude or rotate as intended, difficult root relationships, and recognition that tooth-movement biology can limit the plan.

Case selection & referral

Some respondents said they would not take on the same case again, would select more conservatively, or would have referred to an orthodontist earlier.

Planning & support
Responses mention the quality of the proposed setup, difficulty accessing orthodontic planning input, the need for closer recalls, and changes such as IPR to manage occlusal development.

Expectations & communication
Dissatisfaction after refinements, parent expectations, speech concerns, and uncertainty about final restorative position illustrate why communication must
cover uncertainty as well as instructions.

Biologic & occlusal boundaries
Periodontal attachment loss and recession, posterior bite opening, excessive
overjet, crowding, and functional concerns add issues that a digital setup alone
cannot resolve.

What the open responses add: The closed questions identify root control, compliance, refinements, complex-case limits, and retention as major pressure points. The case narratives show how those pressures interact in individual patients and why the corrective action has to match the actual failure mechanism.

P E O P L E A L S O A S K · TO P I C FA Q

Frequently asked questions about clear

aligner predictability.

What makes some tooth movements less predictable with clear aligners?
Clear aligners do not express every planned movement with the same reliability. Rotation, intrusion, extrusion, torque and complex bodily movements can be less
predictable depending on the tooth, movement magnitude, attachments, staging, biology and case complexity. Clinical monitoring is needed to compare the digital plan with what is actually tracking.

Why are refinements common in clear aligner treatment?
Refinements are additional aligners used when achieved tooth positions do not fully match the planned sequence or when the treatment goal needs adjustment. They may reflect biological variation, tracking loss, complex movements, wear behavior, occlusal changes or a revised treatment objective.

How many hours a day should clear aligners be worn?
Wear instructions vary by treatment plan, but professional orthodontic guidance commonly describes near-full-time wear, with aligners removed mainly for eating, drinking and oral hygiene. The American Association of Orthodontists states that aligners are typically worn at least 22 hours a day.

Why can teeth relapse after clear aligner treatment?
Teeth can move after active orthodontic treatment because periodontal and supporting tissues adapt over time and because tooth position continues to change throughout life. Retention is therefore a planned phase of orthodontic care, using removable, fixed or combined retainers as clinically appropriate.

When might a clear aligner case need a different orthodontic approach?
More complex crowding, extraction mechanics, skeletal discrepancies, difficult root movements or other treatment goals may require auxiliaries, fixed appliances, specialist input or a different plan. Case selection should be based on diagnosis and the movements needed, not on appliance preference alone.

How is AI being used in clear aligner treatment planning and monitoring?
AI is being explored for tasks such as image segmentation, digital measurements, treatment prediction and remote monitoring. Current reviews describe promising applications, but clinical oversight remains important because software automation does not remove biological variation, case-selection limits or the need to verify achieved tooth movement.

D E N TA L I N T E G R AT I O N L E N S

What this means at four decision points in a clear aligner pathway.
The survey suggests that predictability improves when the workflow is built around known failure points rather than treating
every deviation as an unexpected exception.

C L O S I N G P E R S P E C T I V E

The next gain in clear aligner predictability

may come from making uncertainty easier to

recognize, explain, and act on.

The survey does not describe a single weak point in clear aligner therapy. It describes a chain of conditional decisions.
Root control and skeletal relationships influence which cases are appropriate. Complex movements can under-express.
Wear behavior can interrupt tracking. Refinements can extend the pathway. Expectations can harden around a digital
image that looks more certain than the biology. And after active movement is complete, retention can become the dominant
threat to stability.

That chain explains why the strongest findings are not all about the appliance. The clearest relapse signal is removable-retainer fatigue. The leading pre-treatment concern is root torque, angulation, and skeletal discrepancy. When a case stalls, compliance and treatment-plan revision are nearly tied. These findings make predictability look less like a fixed accuracy score and more like the quality of the decisions made before, during, and after the aligner sequence.

The open responses reinforce that view. Some difficult cases were behavioral, others biomechanical, restorative, periodontal, or occlusal. A patient who removes aligners because speech feels different needs a different intervention from a case where extrusion will not express. A crowded periodontal case with attachment loss needs a different decision from a teenager whose family resists referral. A refinement can be appropriate in all of those pathways, but it cannot substitute for diagnosing the reason the original course changed.

AI-assisted planning and monitoring leads the future-development question, which is understandable. Better automation may help flag difficult movements, quantify tracking deviation, or surface patterns earlier than a periodic visual check. But the survey also places improved materials and better prediction of complex movements close behind. The likely future is therefore not “AI instead of judgement.” It is more informative digital tools inside a stronger clinical feedback loop.

The most durable opportunity may be to connect those tools to explicit decision thresholds: which cases require specialist input, which movements need conservative staging or auxiliaries, when non-tracking should trigger a rescan, when repeated refinement should change the modality, and how retention behavior will be supported after active treatment. Predictability improves when the pathway knows what to do with uncertainty.

1 · Select for movement complexity
Base suitability on the required root, vertical, skeletal, periodontal, restorative, and
occlusal changes, not on appliance preference alone.

2 · Treat the setup as a hypothesis
Use digital planning to visualize intent, then challenge movements that are known to be difficult to express predictably.

3 · Diagnose non-tracking before refining
Separate wear, biomechanics, occlusion, attachments, staging, biology, and planning errors so the correction addresses the cause.

4 · Set expectations around uncertainty
Explain the possibility of refinements, auxiliaries, altered endpoints, referral, or a different modality before the patient interprets the animation as a guarantee.

5 · Plan retention before active treatment ends
Make retainer wear, maintenance, breakage response, and long-term follow-up part of consent and treatment planning.

6 · Use AI to strengthen the feedback loop
Adopt digital monitoring or prediction tools where they add reliable information, while
keeping clinical validation and escalation decisions explicit.

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Before accepting the case
Selection lens. Review root position, angulation, skeletal relationships,
periodontal support, occlusion, restorative goals, complexity, and whether the required movements fit the clinician’s scope and aligner mechanics.

During digital planning
Biomechanics lens. Challenge the setup where the result depends on difficult torque, bodily movement, intrusion, extrusion, rotation, or space closure. Define where auxiliaries, overcorrection, referral, or a different appliance may be needed.

When tracking changes
Diagnostic lens. Separate wear behavior from movement limitations, attachment or staging problems, occlusal change, periodontal response, and a
plan that needs revision before automatically ordering more aligners.

After active movement

Retention lens. Treat long-term retainer wear, inspection, replacement, and patient understanding as part of the treatment plan rather than an afterthought introduced at the final appointment.

T H E G L O B A L P U L S E O F H E A LT H C A R E · D E N T I S T RY & O R A L H E A LT H I N S I G H T R E P O R T

Clear Aligner Treatment:
Where Predictability Breaks Down in Practice

Responses from dentists across six countries on the points where clear aligner treatment becomes less

predictable: case selection, difficult tooth movements, tracking loss, refinements, patient expectations,

compliance, retention, relapse, and the technologies clinicians believe could improve outcomes next.

Context → Signal → Judgement → Action

56

Survey records

6

Countries represented
USA · UK · Canada · Italy · France · Germany

82.1%

Completion rate

8979527

Survey ID

Help future dentistry insights reflect the decisions behind clear aligner
outcomes.

Join MDForLives to share real-world perspectives on case selection, tooth-movement predictability, refinements, patient compliance, and retention.

Join the Panel