

## COMPLETE/COMPLETE TRIAL DENTURE

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Complete/complete dentures are used by patients who have lost all their teeth in one arch, that is, either the mandibular or the maxillary, some even lose teeth in both arches. The main aim of the introduction of dentures is to help the patient maintain his or her confidence (Leeh et al., 2017). The ability of the implants to improve on the looks of the subject, retaining his or her previous resemblance boost the self-esteem of the affected individuals, making them free to socialize with others. The dentures also aim at maintaining the aesthetics of the affected patient (McIntyre, 2007). This helps in correcting the collapsed facial appearance brought about by teeth loss.

Additionally, the process helps to maintain and improve the pronunciation ability of the subject. Missing teeth cause pronunciation defects, especially to individuals who lose their anteriors. Lastly, the process helps to improve the subject's mastication ability by replacing the lost teeth (Beyth, Tamari, and Buller Sharon, 2014).

The provision of dentures in the UK has faced developments such as; utilization of fixed bridges, which helps in refilling the gaps in the dental arch. This helps in improving the masticatory forces and dental support, which allows the patient to fill the gap presented by teeth cavities. Additionally, there is the development of fixed dental implants, which are more comfortable and reliable than the temporary dentures. In the UK, the provision of dentures is majorly affected by the comfortability preference of the patient, whereby, some prefer the fixed implants, which are more stable in their jaws. The financial restriction is also a significant factor affecting the provision of the implants in the region since the specialized dental care is expensive, forcing some patients to

rely on the cheap and unreliable implants (Gregory, 2017). The need for complete dentures in the future is likely to diminish due to the current discoveries of the teeth care system. These virtues focus on providing primary dental care, thus reducing the probability of the need for complete dentures in the future.

### Clinical and Laboratory Requirements

During the try-in stage, seven critical criteria have to be adhered to, to ensure that the process is a success. For instance, the appliance ought to meet the specification described (McCord, 2010). This aspect is essential in ensuring that all the features of the primary dental model are catered for, and in the end, the perfect denture is provided to the patient. I was able to achieve this criterion through careful cross-examination of the patient's dental properties, and getting photographs on the structure of the cavities, which I used to counter check if the model adheres to prescriptions provided.

The device should fit the master's model. This is relevant in ensuring that the final denture produced will be a perfect fit for the patient, and it will eliminate any form of discomfort to the subject (Hamza and Hassan, 2012). I ensured that this was achieved by recording all the relevant landmarks contained in the edentulous mouth, to see that all the features coincide. For instance, I recorded the tuberosities, hamular notches and the residual range impressions, the junction between the hard and the soft palate, and the fraena, the buccal sulci, and the functional labial.

Additionally, the process should ensure that the anterior teeth guide is replicated by the reproduced teeth positioning. This is clinically relevant to ensure that the tooth is not too short or long, which will disorient the pronunciation patterns of the patient (GDC,

2017). For instance, if the model anterior teeth are longer than the original model, the F will sound like a V, while if the tooth is shorter, the v will be pronounced as an F. I undertook regular checks on the articulator to ensure that the trial base was stable on the cast, which would otherwise distort the accuracy of the process. This would lead to a varying relationship between the original and the prototype produced.

The final denture produced ensures that posterior set of teeth over the ridge in a straight line, exhibit no reverse compensating curves. This is significant in guaranteeing that the muscle balance is not altered, which may lead to improper functioning of the occlusion process (Nair et al., 2013). To achieve this accuracy, I ensured that the mounting procedure was done carefully and concisely. This guaranteed that the casts were accurately placed to add contact between the lower and the upper bases. I also ensured that the set casts did not touch.

The set-up should be arranged well to correct interdigitation and ensure that the contacts occur in centric. This makes sure that the patient has a perfect connection between his or her teeth, therefore yielding a stable grip of the teeth (Zoidis and Polyzois, 2013). This leads to the formation of attractive aesthetics, and the comfortability of the cheeks and contours. I guaranteed that this criterion was achieved by using a transparent mounting table, which indicates the interaction between teeth, and the appropriate jigsaw orientation to utilize. Thus, the positioning of teeth is predetermined to ensure perfect interdigitation.

The set trial denture set up should ensure that the vertical dimension between the mandible and maxilla does not open up to more than 1mm. This is significant to ensure that the jaw relationship is always maintained and the structure does not affect

the functioning of the jaw muscles (Koronis et al., 2010). This also reduces the probability of destruction of the denture through wear and tear, and the disarrangement of the phonetic, such that pronunciations of S is affected. I was able to adhere to this criterion by accurately setting up the articulator by measurements and relationships obtained from the subject.

The process should also ensure that the waxwork is done smoothly and neatly. This is significant in safeguarding the creation of high quality dentures, which result in perfect aesthetics (GDC, 2017). If it is not smoothed and applied concisely, its structure will not reflect the original model, thus, resulting in a low-quality aesthetic result. I was able to eliminate this challenge by ensuring that I paid attention to every detail of the denture, thus removing any deformation or rough patches on it.

#### GDC Standards for Dental Team

The conduct exhibited by dental personnel determines the level of confidence the patient will have on such a practitioner. Hence, the dentist should exhibit moral behaviors and uphold the set standards that govern the code of conduct. This will ensure that the patient is satisfied by the dentist, even before the treatment process begins (Craig, 2015). This boosts chances of success due to the psychological aspect adopted by the client. Additionally, technicians ought to promote effective communication strategies with patients. This will make sure that the practitioner can grasp all the details that are required to handle the case presented. The denture process is delicate, and any assumption or elimination of a feature provided by the patient would lead to a complete failure of the process. Thus, proper communication will

facilitate the accuracy and preciseness of the entire process, and therefore, such a standard should be adhered to.

The dental technicians should put the interest of their patients first. This observes that all the actions taken by a dentist should be best for the wellbeing of the client. Thus, he or she should not take advantage of the client and provide them him or her with an inappropriate denture, which is not comfortable or does not reflect the actual aesthetic of the patient (Bell, 2013). The dentist should focus on the quality service delivery, rather than gaining profits at the expense of the patient. Moreover, the practitioner should ensure that he or she upholds and protects the subject's information. It is illegal for a medical practitioner to disclose any detail availed by the patient, or even the condition of the operation undertaken by the client, it should remain between the two individuals (Zarb et al., 2013). This will help sustain the secrecy of the private individuals who prefer to keep their lives out of the limelight.

The final work delivered should not expose the patient to any risk. This ensures that the final denture provided meets the quality standards set, such that once installed into the patient, it does not lead to any complications, be it allergies or deformation of the customer's aesthetics (Bernand, 2005). This makes it probable for the patient to reap the overall benefits associated with the implant without any adverse impacts on his or her life. Additionally, the technicians should collaborate with his or her colleagues to ensure that the end-result of the process fulfills the needs and interests of the patient. Hence, dental practitioners should ensure that the final denture delivered serves all the specifications highlighted by the customer (Kumar, Chandra, and Kishore, 2017). Thus,

the primary focus should be fulfilling the patients' needs and interest, rather than saving time or resources if the condition is not met.

### Critical Evaluation of Devices

The trial dentures presented an exposure, where I had the opportunity to exercise the concepts studied theoretically in actual practice. The process was challenging since it required preciseness in all its steps and procedures. Notably, the process of ensuring that the teeth exhibited precise interdigitation was quite challenging, since a slight divergence in the structure could result in the repetition of the whole process (GDC, 2017). Additionally, the structuring of the teeth to ensure they depict the accurate size of the original structure, such that it will not affect the phonetics of the patient, also sharpened my accuracy skills.

However, the process of obtaining measurements and mounting them on the articulator seemed familiar and did not pose many challenges. The last operation also was entirely easy since I am a perfectionist and I had paid close detail to the texture of the final denture structure. Given another chance, I would improve on my preciseness to ensure that I eliminate the regular mistakes I made in my first trial.

## References

- Bell, D. (2013). Standards for the dental team and their implications. *Dental Nursing*, 9(11), pp.657-659.
- Bernard, J. (2005). *Standards for dental professionals*. London: General Dental Council UK.
- Beyth, N., Tamari, I. and Buller Sharon, A. (2014). Overlay removable denture for treatment of worn teeth. *Special Care in Dentistry*, 34(6), pp.295-297.
- Craig, A. (2015). The implications of the new GDC standards for dental professionals. *Dental Update*, 42(6), pp.574-579.
- GDC (2017). *GDC Standards for the Dental Team*. [online] Dentalprotection.org. Available at: <https://www.dentalprotection.org/uk/publications-resources/updates/briefing-documents/2014/11/10/gdc-standards-for-the-dental-team> [Accessed 16 Nov. 2017].
- Gregory, S. (2017). Titanium to Ceramic Dental Implants: A Short Communication. *Dental Implants and Dentures: Open Access*, 02(01).
- Hamza, A., Elkhalifa, I. and Hassan, M. (2012). Appropriateness of Clinical Laboratory Photometers Quality Requirements. *Journal of Clinical Engineering*, 37(3), pp.102-108.
- Koronis, S., Pizatos, E., Polyzois, G. and Lagouvardos, P. (2010). Clinical evaluation of three denture cushion adhesives for complete denture wearers. *Gerodontology*, 29(2), pp.e161-e169.
- Kumar, U.K., Chandra, V. and Kishore, N., 2017. Selective Grinding Technique for Final Balancing Of The Occlusion In Complete Dentures. *Guident*, 10(2).

- Leeh, L., Zoiu W, L., Atu, A., Nai, T., and Minou, A. (2017). Denture Essential Kit: An Introduction. *UI Proceedings of Health and Medicine*, 1.
- McCord, J. (2010). Risk management in clinical practice. Part 6a. Identifying and avoiding medico-legal risks in complete denture prosthetics. *BDJ*, 209(6), pp.273-276.
- McIntyre, F. (2007). Determining 'need' for a Removable Partial Denture: a qualitative study of factors that influence dentist provision and patient use. *Yearbook of Dentistry*, 2007, pp.64-65.
- Nair, V.V., Pradeep Kumar, C., Ram Mohan, K.N., Nair, K.N.V. and Nair, K.C., 2013. A comparative study of different laboratory techniques to control posterior palatal shrinkage in maxillary complete dentures. *Health Sci*, 2(3), pp.1-14.
- Zarb G.A., Hobkirk, J., Eckert, S. and Jacob, R., 2013. *Prosthetic Treatment for Edentulous Patients-E-Book: Complete Dentures and Implant-Supported Protheses*. Elsevier Health Sciences.
- Zoidis, P. and Polyzois, G. (2013). Removable Dental Prosthesis Splint. An Occlusal Device for Nocturnal Bruxing Partial Denture Users. *Journal of Prosthodontics*, 22(8), pp.652-656.