0 (Zero) Concept

Dr. Beach was a dentist by training but was dedicated to moving health care into the global public through a logic of skill and use of digital names including anatomy and procedures that are to be introduced by health care personnel. The 0 Concept was born in the Hindu culture many centuries ago, but Dr Beach was likely the first who tried to apply use of 0 with digits in health care records.

He defined 0 as absence of need for care, ie. health, according to which all types of health care including surgical procedures can be classified in digital order. Daryl Beach also proposed to use spatial coordinates ZYX in this order with T (time) coordinate for health care records as well as skill acquisition.

In the beginning of the 1960s, many writers and speakers have presented a concept identified with Dr. Daryl Beach DMD and conducted courses for treatment systems based on it. The concept centers on the positions, movements, contacts and discomfort that we sense within our bodies as both providers and receivers of care. The scope of concern includes derivation of all acts, space and human interface with technology in clinics, hospitals or field care directed to desired outcome. The concept on which the health care system is based is widely called pd (proprioceptive derivation) or dp (derivations from proprioception). During the 1970s, the concept was applied to an information structure by linking pd/dp order with meanings of 0 (zero) and digital order.

The concept 0 was born in the Hindu culture many centuries ago, but Daryl Beach was likely the first who tried to apply use of 0 with digits in health care records. He defined 0 as absence of need for care, ie. health, according to which all types of health care including surgical procedures can be classified in digital order. Daryl Beach also proposed to use spatial coordinates ZYX in this order with T (time) coordinate for health care records as well as skill acquisition.

ZERO Concept method accelerates the manual skill acquisition and can be applied anywhere in the world.

0 Concept

The "0 Concept" or "Concept of 0" originated from India.
It is a reasoned and effective knowledge.

The numeral "0" represents symbolically the absence, the emptiness or the wholeness (universe,
earth, human being), as well as the order, the origin, the goal, the optimal condition or the equilibrium, the scale and measure, etc…

Let"0" represent symbolically a perfect state of health. Health is the goal. "0 Health" is the goal of health care or absence of need for care.

0 Concept reasoning

50 years ago an American dentist created a universally acceptable new way of doing dentistry by applying what he called "zero concept reasoning" and "proprioceptive derivation"(pd).

The idea of combining"0" as a symbol and "proprioception"(self-awareness of our own optimal body balance) as an inborn faculty is utmost striking: both are common to all human beings and therefore have an impact on everyday human life as well.

All human beings share more or less the same core values and the same physiology. To consider these commonalities as reference and starting point facilitates mutual discussion on those values.

An ideal common starting point is found in a global symbol: Zero.

Zero emerged from India thousands of years ago as symbol for "Nothing" or Absence".

Nothing or absence can serve as reference (" +/- 0 ") for reasoning and discussing issues. To start from scratch is to start from zero.

The Zero symbolizes also equilibrium, the whole, the full, health, environment, absence of difference and much more. The following examples will help you to better understand how to draw conclusions from zero. Any lack or excess is with reference to this 0.

Any interference will result in a modification of zero in a minus direction. So it is worth asking at the beginning: is a change /modification of a present status indicated or desirable? There are 2 possible answers.

1. If this is a reference, there is no indication for change.
This is synonymous with the absence of need of change (eg : with the absence of need of stress, with the absence of need of effort, with the absence of need of waste of resources, a.s.o.)

2. Yes, there is an indication to change zero reference.
In this case, it is logic to stay as close to +/- 0 as possible.

With the help of plus/minus zero, we can draw conclusions on the effect any influence might have on our common values such as peace, non-violence, health, food shortage. The effect is appraised in a 4 point scale of acceptance:

+/-0 Reference
-1 Acceptable
-2 Needs improvement
-3 Not acceptable

We call this way of reasoning "zero concept reasoning".

Proprioceptive Derivation
What is "proprioceptive derivation" (pd)?

Much interest is focused on maintaining or restoring the abilities and health of the human body, but little interest is directed at the best use of the body for providing health care.

"Proprioception" (from Latin: self-perception) is self-awareness of the positions/movements within our own body.

It is the instinctive logical response of our body to maintaining balance in open space.
This inborn feeling is common to all human beings.

What exactly is this inborn wisdom of the body and how do we discover it?

First of all, before being professionals we are first and foremost human beings, and we all share some commonality within us: we are all under the influence of gravity – our common earth condition – and the 3 basic optimal postures of our body are lying down, sitting, standing/walking. For example, when standing on our 2 feet the most natural position is to be upright, as it is how we are able to make the least effort against gravity! It is inborn.

Now, if you want to do a precise work, how would you position yourself, and specially if it is to be for long hours, for the rest of your life? For example: threading a fine needle. How would you do it?

You would first try to find a natural and comfortable position, balanced, and without stress, by self-awareness of the positions/movements within your own body.

The "derivation" of our gesture/position comes from the inborn reaction (feedback) to what our body feels by searching spontaneously for its optimal balance with the least effort.

The full process involves both "proprioception" and "derivation" to become "proprioceptive derivation" (pd).

What is the purpose of pd in professional life?

Let us play the role of becoming a new "pd operator", self aware of your body balance. For the sake of the experience, please forget for a few minutes all your past habits, without the preconception that adaptation is required to the products/equipment.

Forget the way you have been taught to treat your patients (often with your trunk bent and twisted over your patients, with your arm lifted) — experiencing a physical challenge with discomfort and tension.

In short, what do you want as a human being before jumping into the mouth of your patients? Surely, to be at ease, to be relaxed and in full balanced control, but how do you come to that state?

Imagine that you need to treat the first right upper molar, where/how would you like to be? You will find yourself in this position: in an upright state, your head balanced, with your operating finger in the middle of your chest at heart level. Why? Because it is here that you see best and therefore here is where you will control best your finger.

How to find your own pd sense?
To continue our discovery, we follow a few basic "pd exercises" – ideally with closed or masked eyes to concentrate (= enhancing the self-awareness of one's body) – to determine the perfect condition of body balance with similar questions on how to feel/experience the "pd sense" by finding the optimal angulation position of the hand, fingers, forearm and wrist, the elbows lift, the minimum tilt of the head, the best visual point, the seat height, etc.

When these exercises are done, you will use your body best (not distracted by stressful and painful imbalance) with minimum tension and maximum finger control, in such a way that your efficiency and accuracy will increase your productivity).

Combined with exercises, the 0 (zero) point and pd enhance the optimum use of the body.

Go-to-Top:

"Pd" exercises 1 and 2

We will show only a few of them.

All the following exercises will be derived by the sense of proprioception.
Stand in a open area.
Take a moment to relax your body. Assume a comfortable posture.

1 – Stress awareness exercise of hand / fingers / forearm/ wrist
("Sleeping hand" and "straight wrist" exercise)

Slowly lift your operating hand to the level at which you can best thread a needle, for example.

Establish a straight wrist relaxed fingers: this is called the "sleeping hand" and "straight wrist posture".

2- Thinking in 3D coordinate based imagery XYZ and (±) "plus"-"minus" :

How to remember which is Z,Y and X: DERIVE IT!
Stand in an open space and close your eyes.

Become aware that there are basically 3 axes in the space:
"up and down"
"forward and backward"
"right and left".

 Proprioceptively-based sense of order of direction of the 3 axes: If you have to put these axes in order, which feels to you like it comes first? i.e. which is the most basic, or primary? Most people say that "up and down" comes first.

- The "up and down" axis is Z. Perhaps we have this feeling because the first thing we have to do as human beings, living with gravity, is counteract the down force of gravity.
- Which comes second? Most people say that "front and back" comes second, and is more basic than left and right.
- Which comes third? Most say that "left and right" comes third.

1st : Z "up and down"

2nd : Y "forward and backward"

3rd X "right and left"

Remember that Z comes first:
Z "up and down" (Z axis)
Y "forward and backward" (Y axis)
X "right and left" (X axis)

Proprioceptively-based ± (plus or minus) of the 3 axis X,Y,Z relative to the human body

Direction on axis: + and – denote 2 directions on each axis.
Plus and minus (±) are determined using our proprioceptive sense. Most people have the same sense of which is "+" and which is " – " .

- The superior and inferior directions in the Z axis are denoted by plus and minus. Which direction feels like "plus"? Most people feel that the superior direction is "plus", and the inferior direction is "minus" in Z axis.
- In the Y axis, most people feel that the anterior direction is "plus" and the posterior direction is "minus".
- In the X axis, most people feel that right is "plus" and left "minus".

 "pd" exercises 3 and 4

3. Self-awareness of tension-free ELBOW lift:

Stand in an open space and close your eyes.
Assume your preferred body posture and head balance, and relax:
verify that arms and shoulders are hanging loosely.
Take a deep breath, exhale, relax.
Slowly lift your operating hand to the level at which you can best thread a needle, for example.
Maintain this hand position for the rest of this exercise.

Move your elbow forward (Y+) from the loosely hanging position until you begin to feel stress.
Repeat several times. Measure the range.
Move your elbow laterally (X+) from the loosely hanging position until you begin to feel stress.
Repeat several times. Measure the range

This is your "zero range" of elbow movement (a few centimetres only)

4. Self-awareness of tension-free HEAD tilt:

Stand in open space and close your eyes.
Assume your preferred body posture with head balanced.
Take a deep breath, exhale, and relax.

– Become aware of your preferred range of lateral head tilt by bending your head from side to side.
Repeat several times. Verify that you prefer to not tilt your head to the side any more than X cm.
– Become aware of your preferred range of forward head tilt by bending your head forward and backward. Repeat several times. Verify that you prefer to not tilt your head forward any more

than Y cm.

"pd" exercises 5 and 6

5. Self-awareness of eye-finger-sternum 0 balanced head (0 point)

To measure the best visual distance:
Stand in open space.
Close your eyes.
Assume your preferred body posture with head balanced.
Take a deep breath, exhale and relax.

Slowly lift your operating hand to the level at which you can best thread a needle, for example.

Freeze your head and finger in this position.
Open your eyes.
Can you see clearly your operating finger tip?
Place a dot by the outer canthus of your eye.
Maintaining your preferred body posture and head balance, touch the "finger point" to the tip of your nose.

Slowly move your finger tip away from your nose and identify the distance at which you can see the fingerprints best. After measuring the optimum distance in Y direction of your operating index from sternum, you will get your "0 point".

This is your "focus point".   This is your "0 point"

6. Seat height instruction

Sitting on a stool, with no back contact, assume your preferred upper body posture with balanced head.

Derive your preferred seat height by moving the stool up and down or adding or removing a few planks.

    Seat height

After seating yourself at your preferred seat height, we measure the distance from the floor to your 0 point at your operating index for optimal control.

0 point of the operator (finger tip index) coincides with the 0 point of the patient (inter incisal point between 11 and 21).

These are the basic exercises for all human beings. Pd dentists will have to go further in relation to patients, equipment and instruments.

The secret is to be aware of your pd balance all the time until it becomes part of you naturally.

These conclusions were based on proprioceptive derivation.   No one taught you!

 The 0 point and pd for optimum use of the body

A human-centered approach gives us the key to a universal method which is revolutionary in many ways.

Developing self-awareness of the body enhances the manual skill, allowing the easiest movements with minimum tension and maximum precision in direct and indirect views*

Complex tasks – like those involved in dentistry – can be done in best body conditions with the greatest accuracy and precision, avoiding thereby muscular-skeletal disorders.

There is a systematized way to handle a pd mirror for the best associated views

Optimal body balanced posture and position.

Pd is the global principle for optimum use of operators' fingers with associated views of operating points from which working posture & position of the operators and the whole dental clinic can be derived.

"Optimal posture and position"

pd unit in the ADCERRA clinic

– Only pd units built according to "human-centered standards" (called also "global standards") common to all human beings with a flat horizontal support rising up and down – instead of a tilting back rest – will be beneficial to dentists all around the world, by allowing them to maintain natural upright balanced postures in free open space, which correspond to the real need of the operator's body derived by self-awareness.

The natural posture of the dentist (seated behind the head of the patient at full rest horizontal position) and easy free movements automatically enhance maximum finger control.

– Method of treatment by pd dentists. They work in free upright position with their head balanced and with loosely hanging elbows.

2. Patients are lying horizontally on fixed human support (no tilting backrest).
3. Open space (machinery inside the unit).
4. Total concentration of the operator in harmony with the assistant for the safest care.
The pd dentists operate on a pd unit which provides them with the easiest way and the optimum conditions to maintain high quality of care with the highest control of fingers for the benefit of the patients.

- Optimized pd treatment area with a pd unit and cabinet:

the area is an open space (6 m2) where the pd unit is the centre piece (the machinery is hidden inside the unit) allowing free movements of the operator and featuring:

– fixed horizontal human support,
– fixed tray,
– fixed lights (rising up and down with the unit),
– foot controller for all functions (no hand switches),
– powerful vacuum, avoiding need for spittoon,
– cabinet with wash basin (direct access for dentist and assistant).

The benefits
• for patient: safer and better care,
• for care providers: least body tension and better skeletal-muscular health, thanks to a working posture that can be maintained for a long time without fatigue. This means that a dentist can do his job in a healthy way over a normal working lifetime.

This Global Concept provides the easiest way and the optimum conditions to maintain high quality care with best control of fingers for the benefit of patients all around the world.

Global Terms: Mouth care is the starting point in Health Care. Why?

INTRODUCTION

In the aget of Internet, it is urgent to communicate globally among health professionals worldwide to break the barriers of regional descriptive terms, which are not indicated for the quality of care and human resources.

How to communicate globally, without all the language barriers?

Is there a specific global language beyond the national borders for easy and precise communication to share data worldwide?

Please note that global terms are for written and/or spoken communication for technology and specifications. They are not for personal communication.

Dr Daryl Beach has developed global terms for health care in collaboration with WHO based on 0 concept reasoning (link here for the post 0 Concept reasoning). His proposal was made to WHO in 1985 (ref: 0RH/EXP.CTTEE.THAI/85.13).

He established the Health Oriented Status & Intervention Index from 0 to 9, where Health or the absence of need for care is the goal, and is represented by the digit 0. Need for care (intervention) is "–" (minus or unwanted). All interventions or deviations from 0 are assessed and indexed digitally from 0 to 9.

These indexes are conceptually in the minus area. For convenience of use, however, interventions in health care records are indexed from 0 to 9 where 0 denotes collecting information on health status and 9 denotes removable replacement of a body part (Health Oriented Status & Intervention Index).

The effectiveness of health care is assessed in terms of an approach to its goal i.e. absence of need for care (0).

The digital order is based on 0 (zero) based reasoning.

In other words, use of 1 2 3 4 5 6 7 8 9 is defined in relation to definition of 0.

How did global terms come into existence?

"Fields of information are dependent upon specialized terms. They are made of different languages. The type of terminology is a primary factor, affecting objectivity, orderliness and accessibility of information" (ref: WHO proposal).

For translation of information, a person should be bilingual.

Instead of regional terms, "global terms used as the core language of specification minimize the language barriers, the bias and subjectivity inherent in mother tongues" (ref: WHO proposal).

How were they developed?

The global terms consist of a set of digits, which are signaled by one syllable (consonant + vowel), and Cartesian coordinates x, y, z and t (space-time).

"The consonants (m, t,) were selected based upon easy and clear distinction, with least variability among languages and ease of pronunciation. A non-plosive consonant "m" (lips closed) was selected to signal space–related digital sets, and a plosive consonant "t" was selected for digital sets related to energy-based factors"(ref: WHO proposal).

"Five cardinal vowels a,e,i,u,o (in the order of the natural movements of the tongue from forward to backward) are commonly recognized in many languages, therefore the combination of the consonants and vowels give the set of ta, ma, mo, mi, me, te and to which identify and differentiate the meaning of the digital sets"(ref: WHO proposal).

They are pronounced as follows:

a like in 'ah'
e like in 'eh'
i like in 'be'
u like in 'rule'
o like in 'oh'

Here we use the Roman script: instead, it is also possible to convert and to print them in different regional languages giving the same sounds. For example:

ma – English
ம – Tamil

These global terms are in written form and spoken form with global sounds.

Global terms structure

Digits are universally used and therefore global: a global communication becomes possible through a digital language.

Almost everyone knows how to calculate and appraise conditions with 10 digits. Therefore well-ordered digital sets are a global base for learning (acquiring clinical skills) and specifying settings & actions.

Health care is a good example to start with, as it concerns all.

How is the order of digital sets decided?
It is based on deductive reasoning from general to specifics.

An approach to solve a problem is evaluated in relation to the goal. The goal '0' (Zero) of health care is health or absence of need for care.

In mouth care, there are 5 related elements to deal with:

1. Mouth problems
2. Treatment procedures
3. Body conditions of the care provider
4. Body conditions of the care receiver
5. Settings (equipment/instruments/surroundings that affect above #3 and #4).

These 5 elements are linked through global terms: the digital language which is formed through logically ordered digits from 0-9.

This combination of the digital terms makes health care easily understandable and communicable.

Let's discover the logical order to name the systems of the human body, which is the first digit of 5 digits to name their parts.

The top of the head is skin, so 1 is integumentary system, the skull bone is next to the skin, so 2 is musculo-skeletal system. Below the skull bone is the brain, so the nervous system is 3. Likewise, counting the systems from the top of the head down into the gravity axis (Z), the mouth (our specialty) called "digestive system" is 6.

All relevant information is in digital form.

Contrary to special terms that are conventionally taught, rote memory is not needed. We can deduce the meaning based on the reason for order.

Global terms with syllables and digits

to signal 9 fields of information:

- Space based elements-

ma	gross and micro anatomy (of care receiver)
me	setting components including instruments
mi	skill anatomy –ie. body sections, positions, surface lines and points, etc. (of care provider)
mu	planes, lines and points of 'me' items
mo	procedure anatomy – ie. tissues and parts of body parts (of care receiver)

- energy based elements -

ta	clinical records based on the health-oriented index
te	steps of procedure including start, en-route and stop

to magnitudes or scales including weight, temperature, applied force, color, sound, etc.

XYZ –T : coordinate-based measurements – time

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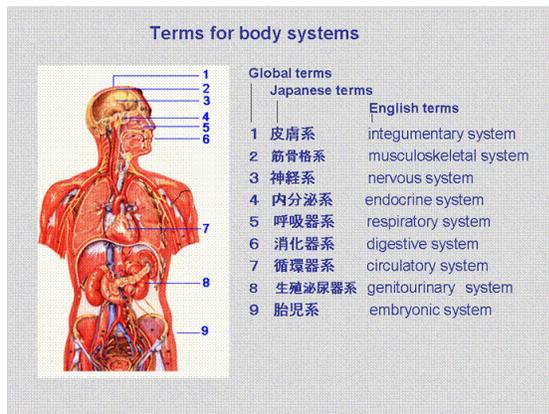
Here are a few examples of digital terms of anatomy with a focus on mouth care.

Example: ma (anatomy care receiver)

0 – zero is nothing or everything!

From top down:

- 0-Entire human body
- 1-Skin
- 2-Musculo-skeletal
- 3-Nervous system
- 4-Endocrine system
- 5-Respiratory system
- 6-Digestive system
- 7-Circulatory system
- 8-Uro-genital system
- 9- Embryonic system

Terms for body systems

Global terms
Japanese terms
English terms

1 皮膚系   integumentary system
2 筋骨格系   musculoskeletal system
3 神経系   nervous system
4 内分泌系   endocrine system
5 呼吸器系   respiratory system
6 消化器系   digestive system
7 循環器系   circulatory system
8 生殖泌尿器系 genitourinary system
9 胎児系   embryonic system

60 – Digestive system

- 61 – lips, tongue, oral cavity
- 62 – dento-alveolar arches
- 63 – oesophagus

- 64 – stomach
- 65 – small intestine
- 66 – large intestine
- 67 – salivary glands
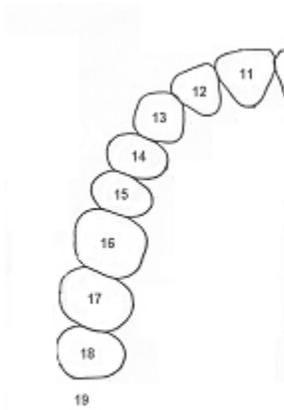- 68 – liver, gall bladder
- 69 – pancreas
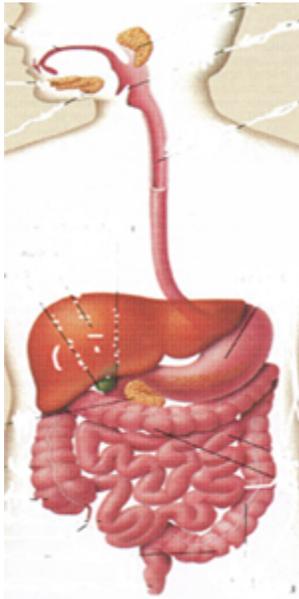
620 –Dento-alveolar arches

- 6200 – dento-alveolar arches (ISO & FDI standard)
- 6201 – maxilla
- 6202 – mandible
- 6203 – upper right sextant
- 6204 – upper mid sextant
- 6205 – upper left sextant
- 6206 – lower left sextant
- 6207 – lower mid sextant
- 6208 – lower right sextant

6210 – Upper right quadrant

- 6211 – upper right central incisor
- 6212 –   "   second incisor
- 6213 –   "   canine
- 6214 –   "   1. premolar
- 6215 –   "   2. premolar
- 6216 –   "   1. molar
- 6217 –   "   2. molar
- 6218 –   "   3. molar
- 6219 –   "   supernumerary

62110 – Tissues of upper right central incisor

- 62111 – mucosa
- 62112 – gingiva
- 62113 – enamel
- 62114 – dentin
- 62115 – pulp
- 62116 – periodontal ligament
- 62117 – hard bone
- 62118 – soft bone

 To avoid unnecessary repetitive information, knowing that we are in the mouth, the first digits "62" can be omitted in the clinical record of mouth care.

Example: ta (treatment procedure based on Health Oriented Index)

What is the reason for order?

From Ø we can make a scale in digital order:

Health (no need of care)
Handicap, dependence |

0		Status/Intervention Index (Health Oriented Index)									-1	
H E A L T H Concept		Promotion and Control		Maintenance of Function		Restoration of Function		Loss of Function		Rehabilitation of Function		H A N D I C A P
		-.0	-.1	-.2	-.3	-.4	-.5	-.6	-.7	-.8	-.9	D E P E N D
O R A L	Absence of need for Care	Recording status and aids	Self-Care monitor explain exercise	surface by performer	interface soft tis. /teeth	alveolus	dentin-enamal	pulp	Surgery	Set-Re/placement fixed	removable	A E N C E
	0	0	1	2	3	4	5	6	7	8	9	

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We know the scale of digital order through 0 Concept reasoning in health care from 0 to 9:
0 collection of data, closest to 0 Health , while 9 is permanent dependence or disability, the most unwanted condition.

From the scale, the treatment procedures are termed in digits.

Example for a filling

   ma|2|7| | | | ta|5|4|1|1|6   on the second left upper molar filling in the
                                              occlusal surface with composite

Control of fingers in 0 Concept

Example: mi (anatomy care provider).

 Points on hand and fingers for precise contacts are denoted by 3 digits.

Through a proprioceptive sense of denominating the operating hand, and assuming it has 4 surfaces:

1st digit denotes fingers

What comes first to your mind if you have to give the number 1? Most of people will say the thumb (right one if you are right handed and reverse if you are left handed.

No 2? The index and so on till 10. Non operating 5th finger10 is denoted by a star(*).

From there, we can go on to more details

2nd digit denotes the surface

What comes first to your mind have to say which surface is no 1? Most of people will say the palm. Why? Probably because is the surface with which we take things!

No 2? The upper side as people flip it over naturally.
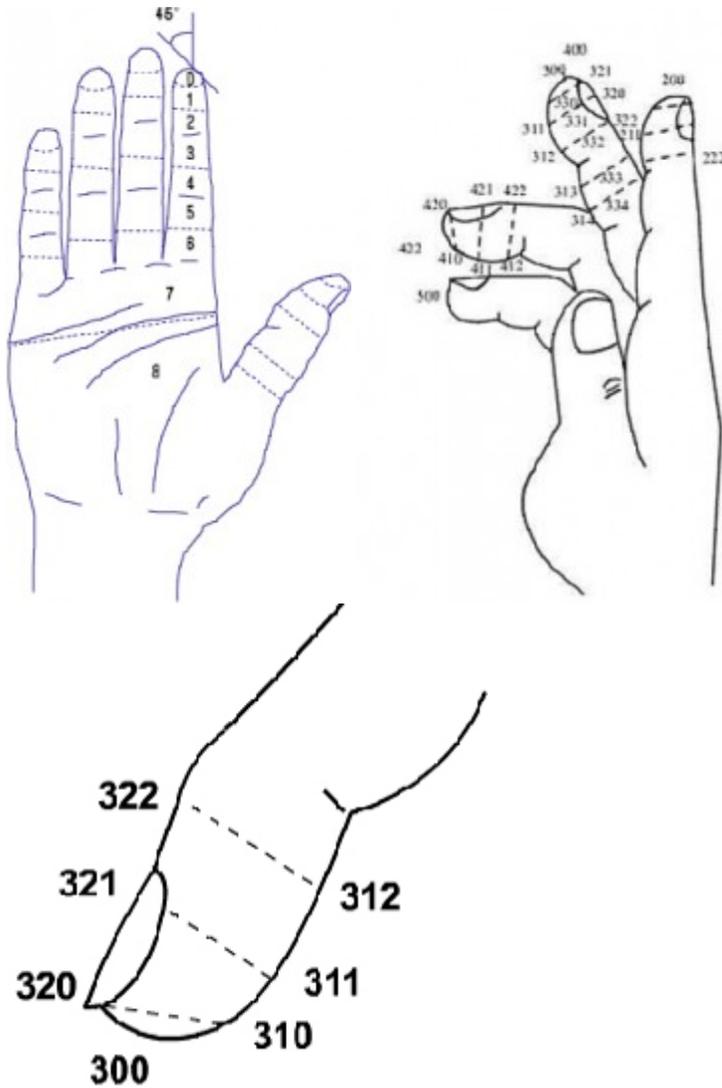No 3? The upper surface vertically they see directly.
No 4? The lower surface they don't see directly.

This is a pd sense of order in your body.

3rd digit denotes the trisectors (of each finger)

The segment is counted from the tip (lines in between the joints).

Ex: mi311 = a point on the operating 3rd finger, palmar surface, 1st trisector counting from the tip).

The digitalization for "mi" follows this logic and is based on "pd".

Example for a precise point: mi 300 (tip of the operating (right) middle finger

Global Sounds: Global terms are spoken with global sounds

These 10 global terms can be both written/printed in each regional language and spoken through global sounds.

They comprise of one syllable (consonant l or p + vowel a e i u o) assigned for digits 0-9.

0	1	2	3	4	5	6	7	8	9
la	le	li	lu	lo	pa	pe	pi	pu	po

Audio Player
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Use Up/Down Arrow keys to increase or decrease volume.

They are the shortest which:

- have meaning
- are universal
- are easy and fast to learn

They follow the same logical structure:

- ma me mi mu mo ta te to
- 10 spoken digits (global sounds)
- coordinates xyz t

Example for verbal control between 2 Dental Health Workers about a scaling to do on the upper permanent right molar in the optimal condition (0 condition) using the tip of the scaler at the deepest point near the gingiva in the middle of the palatine surface of the first upper maxillary molar.
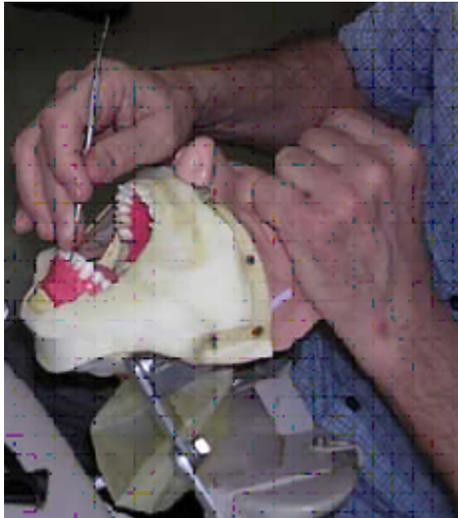
Connection of digital sets

All sets of digits are interrelated for a complete range of information through global terms.

Example: Finger control of care provider in relation to instrument and patient (care receiver)

Finger / hand points for precise contacts

(Written)	(Spoken)	(DescriptiveEnglish)
mi300 ma41 mo33	milulala malole molulu	Tip of the third right operating finger resting on the 1st right lower central incisive on the vestibular surface

So global terms deducted by this logic simplify the communication without language barriers in written words or spoken digits.

[Go-to-Top:](#)

Global Terms and Global Sounds used in ADCERRA

ADCERRA's programme to train village women to become Dental Health Workers is based on this innovative method which use "global terms" and "global sounds".

How does global terms and global sounds help us to train Dental Health Workers?

For an easy learning (of the village women with only primary/secondary school), we are using only 5 fields of information:

ma: anatomy (care receiver)

mi: sections, lines or points on human body surface (care provider)

mo (partly): anatomic subparts, tissues, planes, lines and points

ta : treatment procedure

xyz

10 global sounds

Explanations for recording the treatment with global terms

From the complete digital sets, we will see how to derive the recording of treatments.

We select "ma" and "ta": (refer to the table)

Global language	Descriptive regional terms
ma	Anatomy (dento-alveolar parts including teeth) of the patient
ta	Treatment procedure

We know that , we use the digits 0-9 from global to detail.

"ma" gross and micro anatomy (of care receiver) *logical order from top-down of the systems*

|	
0 – zero is nothing or everything!	
0 = Entire human body	

- 1 = Skin

- 2 = Musculo-skeletal

- 3 = Nervous system

- 4 = Endocrine system

- 5 = Respiratory system

- 6 = Digestive system

- 7 = Circulatory system

- 8 = Uro-genital system

- 9 = Embryonic system

"ma" *(anatomy)* (dento-alveolar parts including teeth) of the patient from global to detail.

1	2	3	4	5	
0					Body
1					Skin system
6					Digestive system
6	1				Lips, mouth, tongue
6	2				Teeth, gums
6	2	1	1		Maxillary right quadrant, tooth 1
6	2	1	1	3	Maxillary right quadrant, tooth 1, enamel

Different dento-alveolar sections
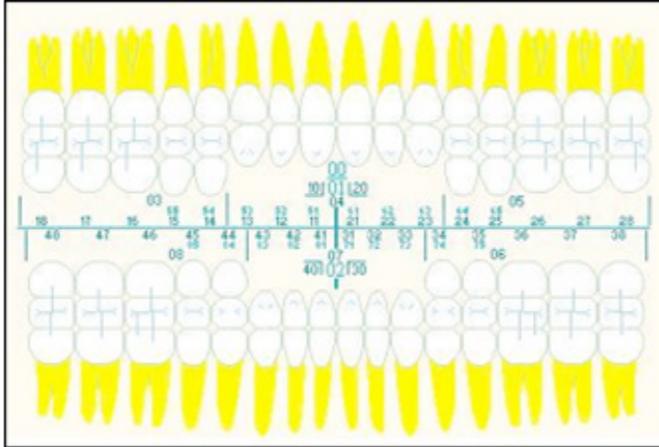
Permanent tooth numbering

18 17 16 15 14 13 12 11 21 22 23 24 25 26 27 28
48 47 46 45 44 43 42 41 31 32 33 34 35 36 37 38

Deciduous tooth numbering

55 54 53 52 51 61 62 63 64 65
85 84 83 82 81 71 72 73 74 75

6210 – Upper right quadrant

- 6211 – upper right central incisor
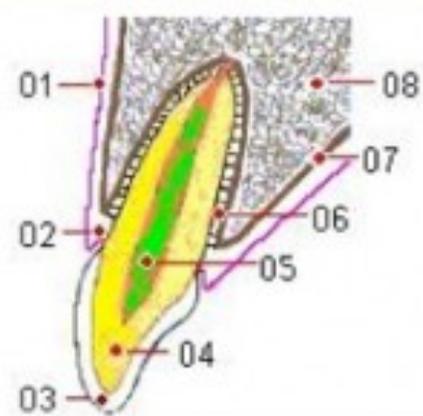
- 6212 –   "

second incisor

- 6213 –   ”
  canine

- 6214 –   ”   1.
  premolar

- 6215 –   ”
  2. premolar

- 6216 –   ”
  1. molar

- 6217 –   ”
  2. molar

- 6218 –   ”
  3. molar

Details of the dento-alveolar structure (tissue)

62111 – mucosa
62112 – gingiva
62113 – enamel
62114 – dentin
62115 – pulp
62116 – periodont
ligament
62117 – hard bone

62118 – soft bone

Further the surfaces on a tooth are defined as

1 Occlusal

2 Mesial

3 Distal

4 Facial

5 Lingual

Details are further refined in "ma", so it goes on…..

Recording "ma" for <u>full mouth light scaling</u>

The first digit represents the – Digestive System:

ma

1   2   3   4   5
6

The second digit is "2" – Mouth. The 1st and 2nd digits direct us to a part of the body:

ma

1   2   3   4   5
6   2

The 3rd and 4th digits represent the full dento-alveolar structure / part / tooth number)
Here we have "00" for full dento-alveolar structure:

ma

1 2 3 4 5
6 2 0 0

The 5th digit represents the tissue of the body. *Here the (free) gingiva:*

ma

1   2   3   4   5
6   2   0   0   2

Now we will move on to see how the treatment part is recorded with the same logical deduction.The above anatomy "ma" recording gives us the details where exactly the work was done. digestive system/mouth/ full dento-alveolar structure/gingival area.

"ta" : clinical records based on the Health-Oriented Index

0 – Absence of need for care to 9 most unwanted condition. These indexes are conceptually in the minus area. For convenience of use, however, interventions in health care records are indexed from 0 to 9.

ta *(treatment procedure)*

0 – Absence of need for care

- 0 = Recording

- 1 = Self care information/supplies

- 2 = Maintenance/Restoration (surface)

- 3 = Maintenance/Restoration (interface soft tissue/teeth)

- 4 = Maintenance/Restoration (interface alveolus)

- 5 = Restoration (dentin-enamel)

- 6 = Restoration (pulp)

- 7 = Surgery

- 8 = Set-Replacement (fixed)

- 9 = Set-Replacement (mobile)

ta *(treatment procedure)*

0 – Absence of need for care

0 (e.g. check-up)

1 (e.g advise tooth brushing/supply toothbrushes)

2 (e.g. scaling).

3 (e.g. orthodontia)

4 (e.g. periodontia)

5 (e.g. carie)

6 (eg . endodontia)

7 (e.g. surgery)

8 (e.g. (fixed prosthodontics)

9 (e.g. removable prosthodontics)

For example, recording "ta" treatment procedure for a cavity:

TREATMENTS have 5 digits:
1st & 2nd digits represent "NEED OF INTERVENTION"
3rd & 4th digits represent "SURFACE"
5th digit represents "MATERIALS"

5 is Restoration

ta

1 2 3 4 5
5 4

The 3rd & 4th digits represent the SURFACES

Surfaces of the tooth:

O-Occlusal

M -Mesial

D -Distal

F-Facial

L-Lingual

G-Gingival

3rd & 4th digits for ta 5, 8:

11 O	21 OM	31 OMD	41 OMDF	51 OMDFL
12 M	22 OD	32 OMF	42 OMDL	
13 D	23 OF	33 OML	43 OMFL	
14 F	24 OL	34 ODF	44 ODFL	
15 L		35 ODL		
16 MG		36 OFL		
17 DG				
18 FG				
19 LG				

"1" represents a single surface the other "1" represents the actual surface which is Occlusal, now we have the third and fourth digits.

As per the surface the 3rd and 4th digits are recorded:

ta

1 2 3 4 5

5 4 1 1

The 5th digit represents "MATERIALS" used for the filling:

Materials

5th digit for ta53-57, 83-85, 93-96:

1	tissue(cultured or donated tissue/organ)

2	resin-unfilled (zinc oxide)
3	ceramic (glass ionomer)
4	metal
5	metal (chemical set) (amalgam)
6	resin-filled (composite)
7	resin & metal
8	ceramic & metal

For a ceramic filling for eg:, it will be the "3", now we have the fifth digit

ta

1 2 3 4 5
5 4 1 1 3

The above treatment "ta" recording gives us the information that a restoration has been done on the occlusal surface (single) with a ceramic filling.

So the treatment record from consultation to restoration with (ma-ta) will be as follows:

ANATOMY : ma – tooth number with 5 digits
TREATMENTS : ta – restoration surfaces and material with 5 digits
53 indicates – early caries
54 indicates – later caries
55 indicates – extended/repaired caries

Few examples:

ta *(treatment procedures by Health Workers)*

0 – Absence of need for care

- 0 check-up

- 1 advise tooth brushing/supply toothbrushes

- 2 Stain/light calculus removal/sealant

- 3

- 4 Heavy calculus removal

- 5 Cavities

- 6

- 7

- 8

- 9