



Audiology Services during the COVID-19 Pandemic

HEARRING SURVEY

Jul 7, 2020

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Overview

In preparation for the HEARRING Round Table Online Discussion on June 26, 2020, the HEARRING Group conducted a survey among the webinar participants in order to better understand the challenges due to COVID-19 to audiology services in various practice types.

The link to survey was sent out on June 17, together with the invitation to the HEARRING Round Table Online Discussion. The majority of the responses were received before the event (June 26th 13:00 CEST). Only two responses were received after the online event.

A summary on the survey itself is provided here:

- Number of questions: 11
- Average time of completion: 8 min
- Date of the first response received: Jun 17
- Date of the last response received: Jun 29
- Completion rate: 100%
- Number of responses received: 76
 - Number of responses excluded from statistics: 9
 - Reason of exclusion: responses filled out by students (8) or an intern (1)
- Number of responses included for final analysis: 67

A detailed report is provided below.

Question 1

Question: General information: profession, city, country

Result: The survey was collected anonymously. The professions of the participants are:

- Audiologist: 43
- Audiologist and Speech Language Pathologist: 13
- Speech Language Pathologist or Auditory Verbal Therapist: 2
- ENT or physician: 6
- ENT and audiologist: 2
- Researcher: 1

Number of cities: 42; 1 response skipped this information.

Number of countries: 10 (Argentina, Austria, Bangladesh, Germany, India, Indonesia, Spain, Switzerland, UK, US)

Discussion:

86.6% (58/67) of the participants work solely or partly as an audiologist.

The survey reflected situations in 10 countries on 4 continents (Asia, Europe, North America, and South America). The COVID-19 pandemic status of the relevant countries at the end of June 2020 is provided below for better understanding:

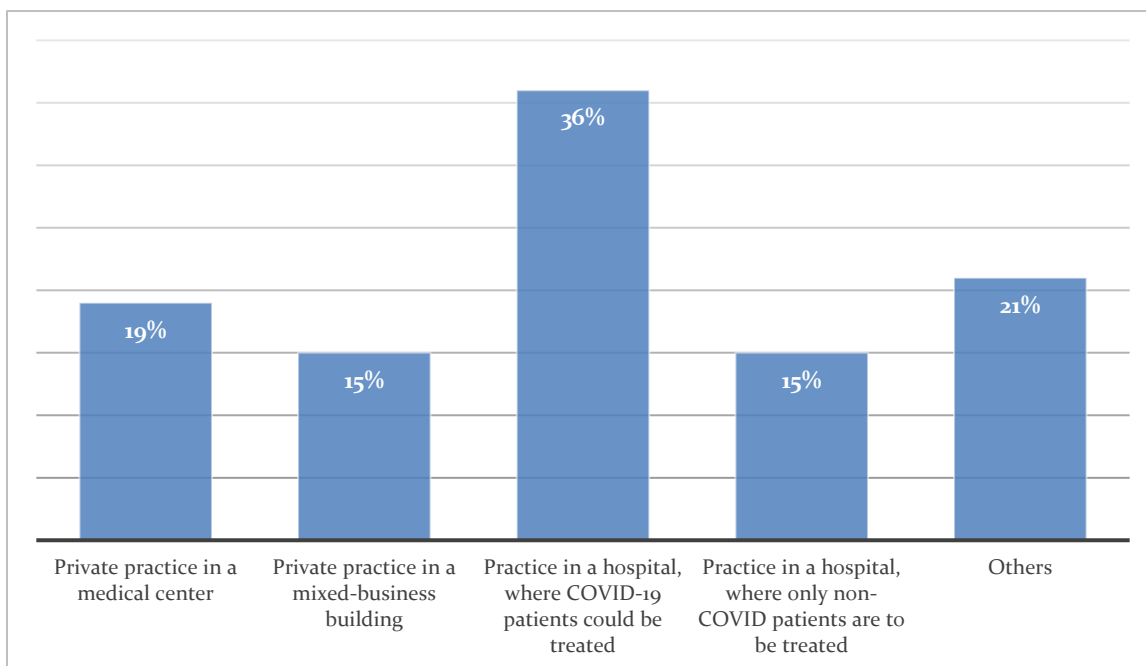
Country	Pandemic status
Argentina	Peak / high plateau
Austria	Post pandemic re-opening
Bangladesh	Peak / high plateau
Germany	Post pandemic re-opening
India	Peak / high plateau
Indonesia	Accelerating
Spain	Post pandemic re-opening
Switzerland	Post pandemic re-opening
UK	Decelerating
US	Accelerating

Question 2

Question: Type of your practice (multiple choice possible)

Results: 67 answered, 0 skipped

- Private practice in medical center: 13
- Private practice in a mixed-business building: 10
- Practice in hospital where COVID-19 patients could be treated: 24
- Practice in hospital where only non-COVID patients are to be treated: 10
- Others: 14, details see below
 - University clinic: 5
 - Institution / teaching institution /MSC/College: 5
 - Private clinic with multi-disciplinary (allied health) team or in a clinical set-up: 2
 - Clinical unit affiliated to ENT hospital: 1
 - Hearing implant company: 1



Q2: Type of Practice

Discussion:

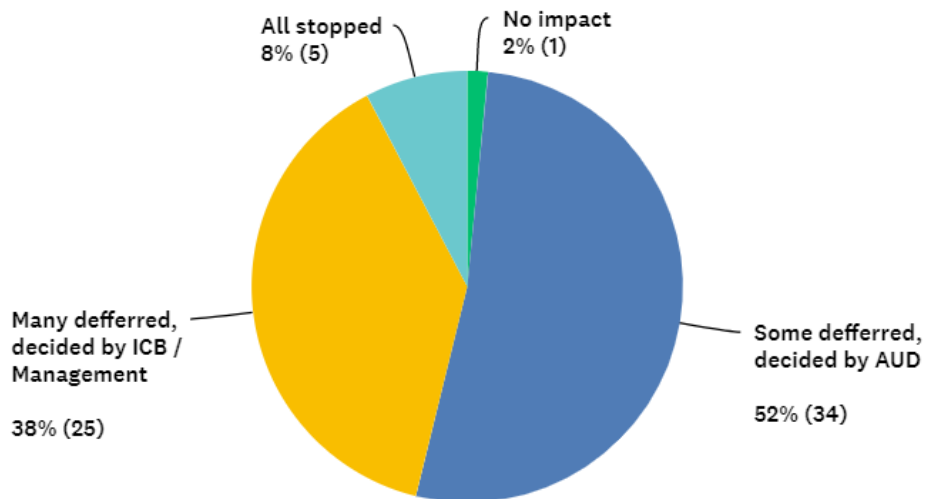
Respondents work in a variety of types of practice (e.g. private practices in mixed-business buildings, medical centers, big hospitals, etc.). The participants of this survey are a good representation of the various types of practice, with a bit more from hospitals (39/67, 58.2%). The clinical setup may greatly influence what preventive measures are taken; i.e. those taken by audiological services inside large hospital may be different from those taken in a small clinic.

Question 3

Question: How has your practice been impacted by the pandemic?

Results: 67 answered, 0 skipped

- No impact: 1
- Some services deferred, decided by audiologists: 34
- Many services deferred, decided by ICB / Management: 25
- All services stopped: 5



Q3: Impact to the practice by the pandemic

Discussion:

Nearly all survey participants were experiencing reduced service at the end of June 2020. The significance of the impact varied. Audiologists can strongly influence which services are deferred (57% (34/59) of the controllable situations)).

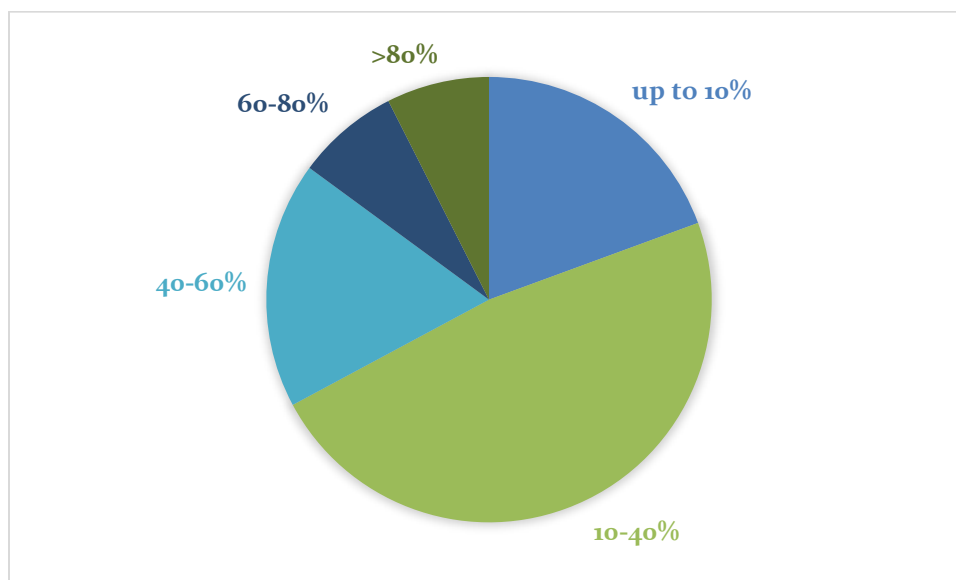
Question 4

Question: Compared to before the pandemic, what percentage of patients are visiting your clinic at the moment?

Result: 67 answered, 0 skipped

The average percentage of patients visiting the clinic is 37%.

Detailed distribution of the reported percentage is presented below:



Q4: Percentage of patients visiting the clinic at the time of survey

Discussion:

Compared to before the pandemic, on average only 37% of patients were visiting audiological practices at the end of June 2020. The distribution of the response (10-40% was the most common answer) confirmed this conclusion.

Question 5

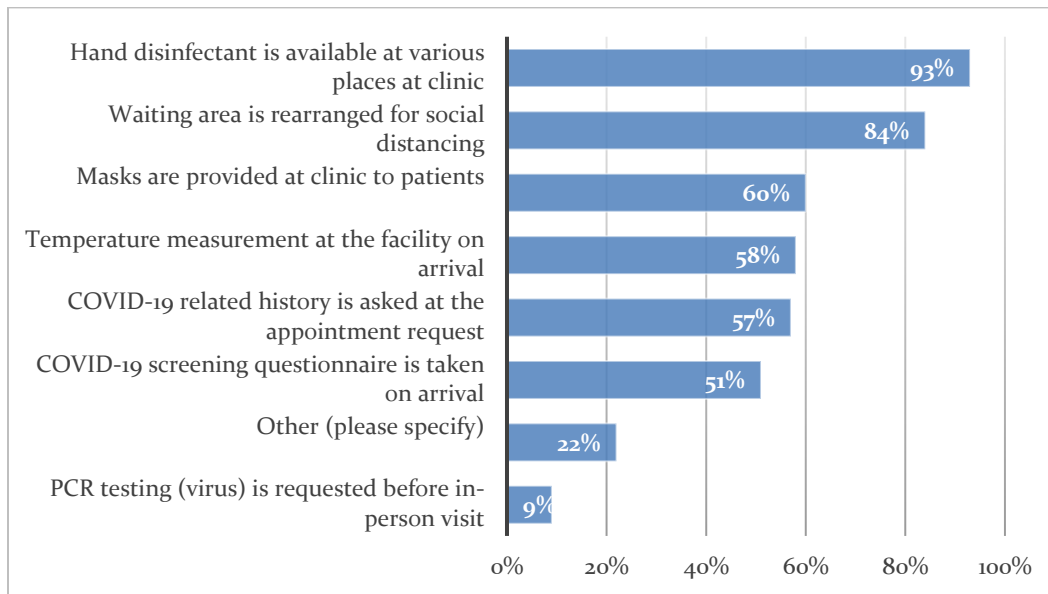
Question: Which COVID preventive controls are in place in your practice?

Results: 67 answered, 0 skipped

	Response	%
Hand disinfectant is available at various places at clinic	62	93%
Waiting area is rearranged for social distancing	56	84%
Masks are provided at clinic to patients	40	60%
Temperature measurement at the facility on arrival	39	58%
COVID-19 related history is asked at the appointment request	38	57%
COVID-19 screening questionnaire is taken on arrival	34	51%
Other (please specify)	15	22%
PCR testing (virus) is requested before in-person visit	6	9%

Additional comments:

- (Birmingham / UK): “No waiting room, only one parent entering clinic with child, patient escorted in and out of building, one-way system in the department, room thoroughly cleaned between patients so no patient overlap, audiologists to wear PPE (mask, apron, gloves and visor for otoscopy)”
- (Vienna/ Austria): “INPATIENTS are all PCR tested before admission”
- (Calicut/India): “Placed sanitized boxes to give and take hearing aid/devices to patients, maximum social distancing”
- (Calicut/ India): “Face shield is used by the staffs, chappals are mandatory, gloves are being used always inside the clinics”
- (Chennai / India): “Air conditioning is closed and the audiometric room is kept open. / PCR testing is not always insisted for OP consultation and audiological screening, but even for minor OT procedure, it is advised.”
- (Jakarta / Indonesia): “Serology test is required at every 2 weeks”
- (Durham / USA): “CI mapping in the sound booth, audiologist is programming outside of the booth”
- (Bradford / UK): “COVID testing for all in patient / planned testing for elective surgery with social isolation”
- (Cochin / India): “No entry without mask”



Q5: COVID preventive controls in place at the practice

Discussion:

Most of the practices have hand disinfectant at various places and have rearranged their waiting areas to make social distancing easier.

Requiring masks, measuring temperature, and COVID-19 question screening are also commonly adopted measures.

PCR testing for outpatients before the visit is not common in most of the clinics. This may be an important requirement for inpatients or for patients who are about to be operated on.

Question 6

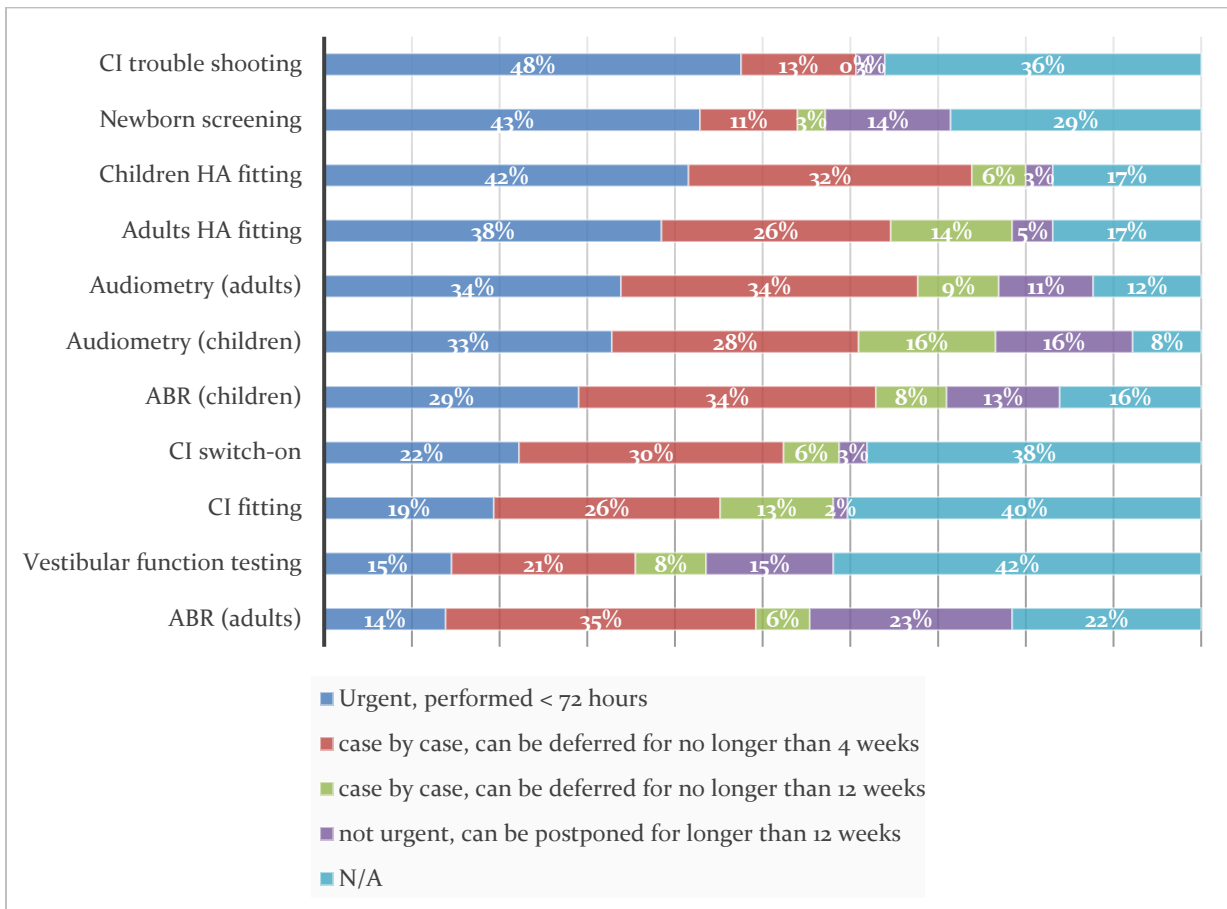
Question: How are the following audiological services considered during the pandemic in your clinic?

Results: 66 answered, 1 skipped

	Total	Urgent, performed < 72 hours		Case by case, can be deferred for no longer than 4 weeks		Case by case, can be deferred for no longer than 12 weeks		Not urgent, can be postponed for longer than 12 weeks		N/A	
		%	Count	%	Count	%	Count	%	Count	%	Count
Audiometry (adults)	65	33.85%	22	33.85%	22	9.23%	6	10.77%	7	12.31%	8
Audiometry (children)	64	32.81%	21	28.13%	18	15.63%	10	15.63%	10	7.81%	5
Newborn screening	63	42.86%	27	11.11%	7	3.17%	2	14.29%	9	28.57%	18
ABR (adults)	65	13.85%	9	35.38%	23	6.15%	4	23.08%	15	21.54%	14
ABR (children)	62	29.03%	18	33.87%	21	8.06%	5	12.90%	8	16.13%	10
CI switch-on	63	22.22%	14	30.16%	19	6.35%	4	3.17%	2	38.10%	24
CI fitting	62	19.35%	12	25.81%	16	12.90%	8	1.61%	1	40.32%	25
CI trouble shooting	61	47.54%	29	13.11%	8	0.00%	0	3.28%	2	36.07%	22
Hearing aid fitting/trouble shooting (adults)	65	38.46%	25	26.15%	17	13.85%	9	4.62%	3	16.92%	11
Hearing aid fitting/trouble shooting (children)	65	41.54%	27	32.31%	21	6.15%	4	3.08%	2	16.92%	11
Vestibular function testing	62	14.52%	9	20.97%	13	8.06%	5	14.52%	9	41.94%	26

Additional comments on guidelines:

- (Birmingham / UK): "NICE guidelines are followed"
- (Bern / Switzerland): "Guidelines: Do not exist"
- (Miraj / India): "IAOHNS COVID guidelines"
- (Chennai / India / Pediatric): "Following position statement of 2017 from Indian Academy of Pediatrics"
- (Calicut / India): "We are mainly providing telehabilitation and video-call services for even troubleshooting of devices and auditory verbal therapy. Other audiological tests were performed as soon as possible same as before the lock down hits. All hearing evaluation is currently doing with precautions and adequate safety measures."



Q6: Urgency of Audiology Services

Discussion:

CI troubleshooting is considered the most urgent service (should be performed within 72 hours) by most of the survey participants (74%). No participant regards CI troubleshooting as a not urgent service (i.e. one that can be postponed for longer than 12 weeks).

Newborn screening should also be performed soon: either before 72 hours (60%) or within 4 weeks (16%). Most participants answered that HA fitting in children (89%) and CI switch-on (85%) should be performed within 4 weeks.

These results are in line with the results of Question 10, which assesses how likely the deferral of certain services will result in patient harm.

Question 7

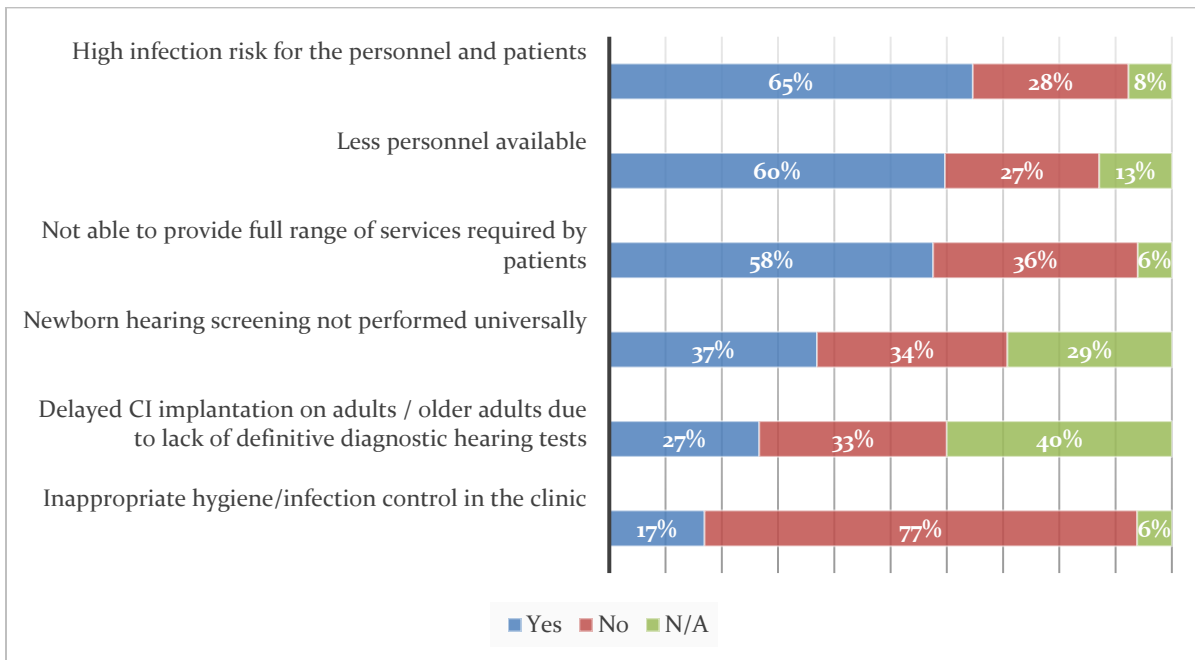
Question: Are the following challenges in your practice due to the pandemic?

Results: 66 answered, 1 skipped

	Total	Yes		No		N/A	
High infection risk for the personnel and patients	65	64.62%	42	27.69%	18	7.69%	5
Inappropriate hygiene/infection control in the clinic	65	16.92%	11	76.92%	50	6.15%	4
Not able to provide full range of services required by patients	66	57.58%	38	36.36%	24	6.06%	4
Newborn hearing screening not performed universally	65	36.92%	24	33.85%	22	29.23%	19
Delayed CI implantation on adults / older adults due to lack of definitive diagnostic hearing tests	60	26.67%	16	33.33%	20	40.00%	24
Less personnel available	62	59.68%	37	27.42%	17	12.90%	8
Other (please specify)	9						

Additional comments:

- (Birmingham / UK): "Information about infection control has been hard to find and continues to change."
- (Vienna / Austria): "We are now in June nearly at normal workload."
- (Calicut / India): "We adequately taken the measures to cope up with the situations after lock-down and all the staffs joined on duty as per posting."
- (Calicut / India): "Audiology services for children in direct contact are minimized through their parent."
- (Manchester / UK): "Less personnel due to social distancing requirements."
- (Chennai / India): "Routine audiological evaluation is undisturbed but acceptability for the medical management from the patient side seems to be lessened."
- (Innsbruck / Austria): "Delayed implantation due to limiting services to emergency cases. Different stages of shutdown depending on estimated risk."
- (Bradford / UK): "Routine audiology deferred urgent cases / ci cases on case by case - some patients shielding / some don't want to come to hospital."



Q7: Challenges for the practice during the pandemic

Discussion:

The most common challenges to audiology practice are:

- high infection risk for personnel and patients
- not able to provide full service
- less personnel available

It is interesting that inappropriate hygiene / infection controls are a problem for only 20% of the participants although the high infection risk poses the biggest challenge (65%).

Question 8

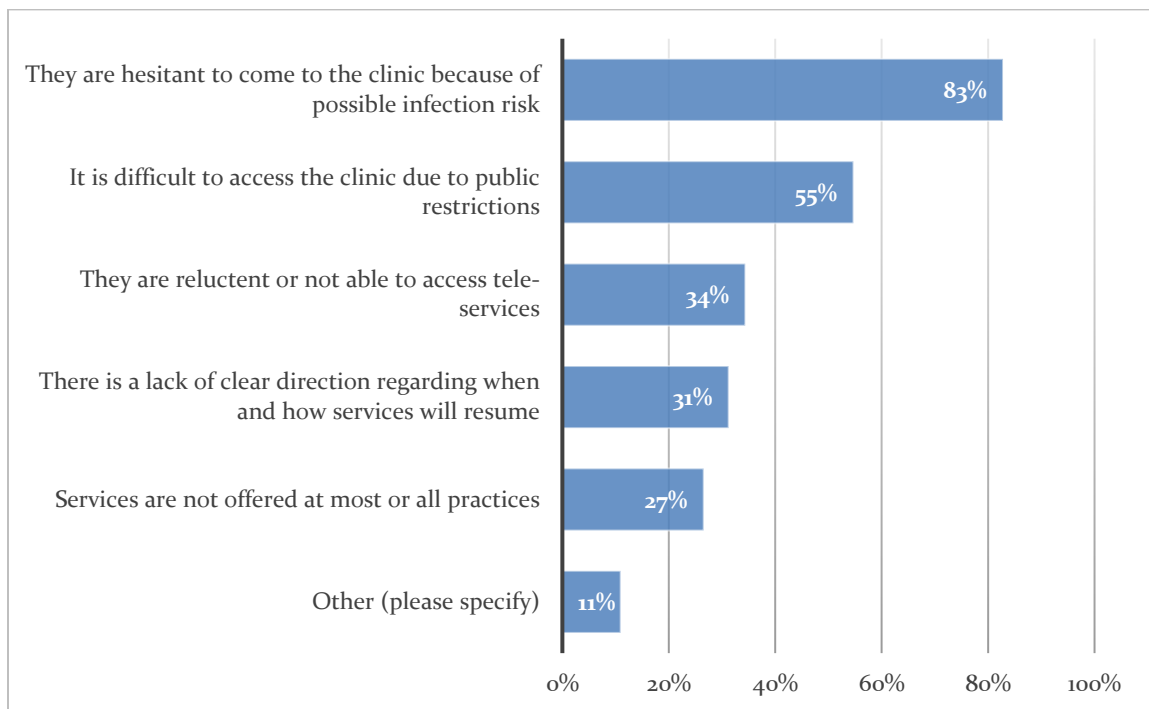
Question: What are the biggest challenges for your patients?

Results: 64 answered, 3 skipped

	Responses	
They are hesitant to come to the clinic because of possible infection risk	82.81%	53
Services are not offered at most or all practices	26.56%	17
It is difficult to access the clinic due to public restrictions	54.69%	35
There is a lack of clear direction regarding when and how services will resume	31.25%	20
They are reluctant or not able to access tele-services	34.38%	22
Other (please specify)	10.94%	7

Additional comments:

- (Birmingham / UK): "Radiology, ECG, and surgery slots are limited due to demands of hospital"
- (Calicut / India): "Only the first month affected the patient care services."
- (Goa / India): "Poor infrastructure"
- (Chennai / India): "Referrals are far less as the practicing surgeons closed down"
- (Bradford / UK): "Guidance by government as to process"



Q8: Challenges for the patients during the pandemic

Discussion:

The biggest challenge in most of the clinics is that patients are hesitant to come to the clinic due to the risk of infection (82%). That patients find it difficult to access the clinic is another important problem for many clinics (55%).

In addition, many patients are reluctant to use (or are not able to access) teleservices. This imposes new challenges to audiologists when providing alternative services.

Question 9

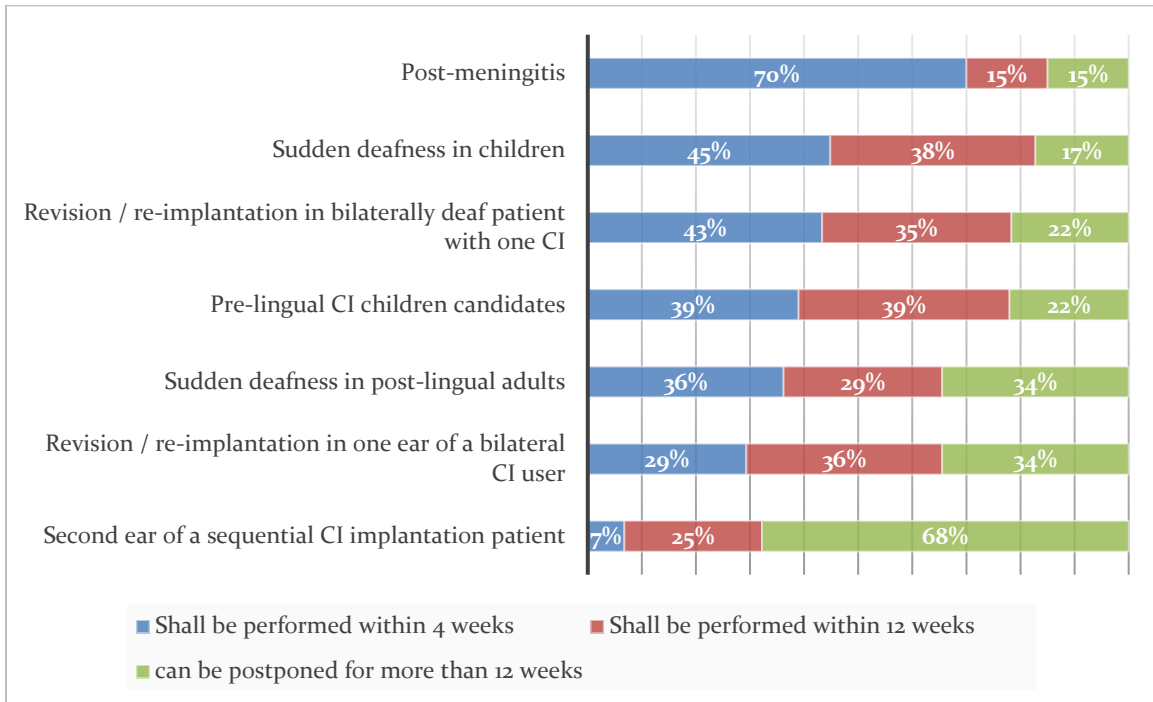
Question: In your opinion, how urgent is CI implantation for the following scenarios?

Results: 62 answered, 5 skipped.

	Total	Shall be performed within 4 weeks		Shall be performed within 12 weeks		Can be postponed for more than 12 weeks	
		%	Count	%	Count	%	Count
Post-meningitis	60	70.00%	42	15.00%	9	15.00%	9
Pre-lingual CI children candidates	59	38.98%	23	38.98%	23	22.03%	13
Second ear of a sequential CI implantation patient	59	6.78%	4	25.42%	15	67.80%	40
Sudden deafness in post-lingual adults	58	36.21%	21	29.31%	17	34.48%	20
Sudden deafness in children	58	44.83%	26	37.93%	22	17.24%	10
Revision / re-implantation in bilaterally deaf patient with one CI	60	43.33%	26	35.00%	21	21.67%	13
Revision / re-implantation in one ear of a bilateral CI user	58	29.31%	17	36.21%	21	34.48%	20
Other (please specify)	4						

Additional comments:

- (Bradford / UK): "We have to compete for theatre space we ask for urgent slots but surgeries tend to be referred children get priority."



Q9: Opinions on CI surgery prioritization

Discussion:

Not all CI surgeries have the same urgency. The most urgent cases are people with meningitis, then children (revision, pre-lingual and sudden deafness), and then adults (sudden deafness and revision).

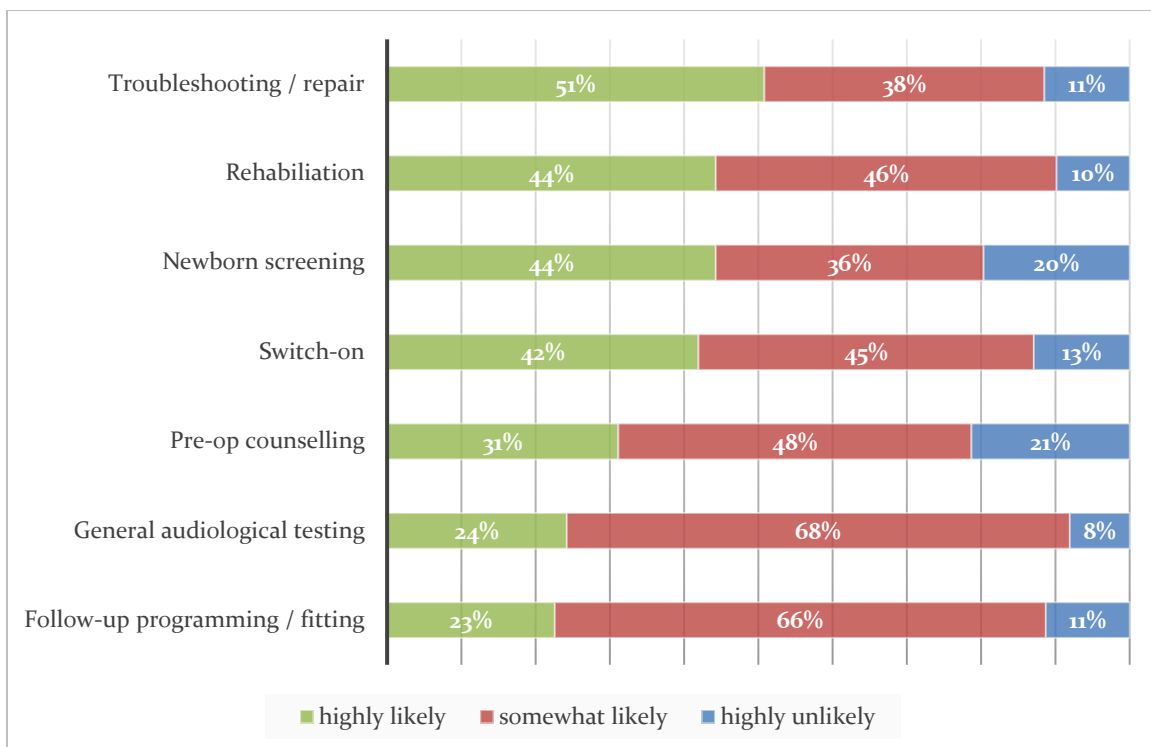
Implanting the second ear, in a case of sequential bilateral implantation, can be delayed for 12 weeks or longer.

Question 10

Question: Regarding CI candidates/users, how likely will deferral of the following services result in patient harm?

Results: 62 answered, 5 skipped

	Total	Highly unlikely	Somewhat likely	Highly likely			
Newborn screening	61	19.67%	12	36.07%	22	44.26%	27
General audiological testing	62	8.06%	5	67.74%	42	24.19%	15
Pre-op counselling	61	21.31%	13	47.54%	29	31.15%	19
Switch-on	62	12.90%	8	45.16%	28	41.94%	26
Follow-up programming / fitting	62	11.29%	7	66.13%	41	22.58%	14
Rehabilitation	61	9.84%	6	45.90%	28	44.26%	27
Troubleshooting / repair	61	11.48%	7	37.70%	23	50.82%	31



Q10: How likely will deferral of the services causing harm to patients?

Discussion:

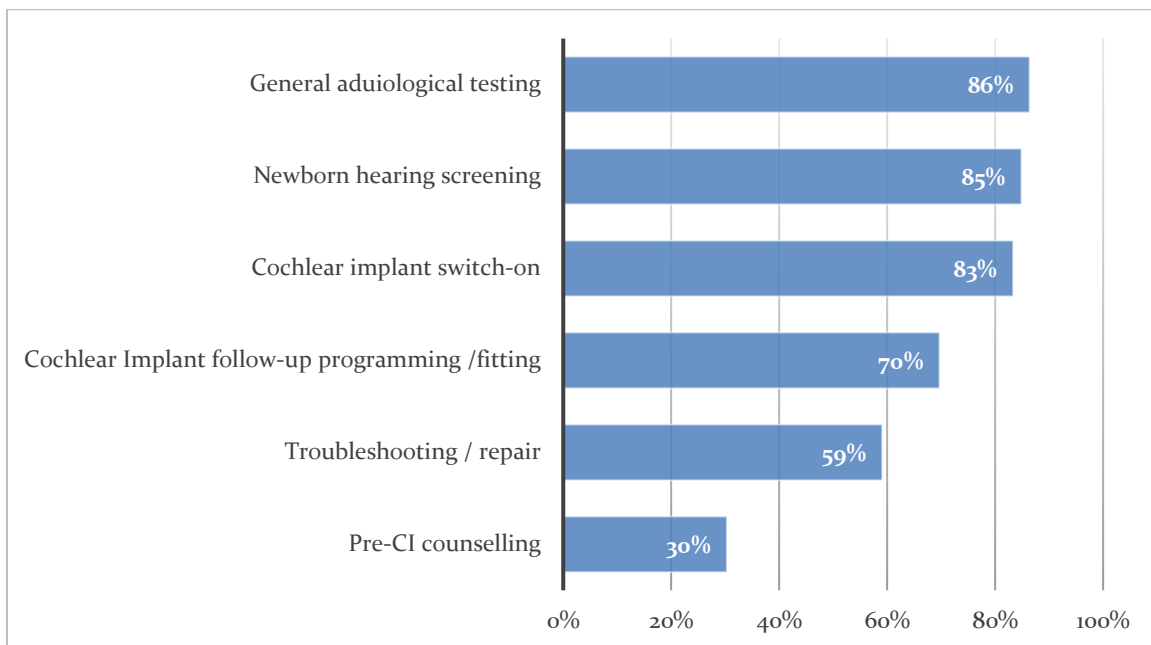
The results are consistent with and therefore support the evaluation of the urgencies of audiology services in Question 6 above.

Question 11

Question: Which of the following services require a patient visit?

Results: 66 answered, 1 skipped

	Responses	
Newborn hearing screening	84.85%	56
General audiological testing	86.36%	57
Pre-CI counselling	30.30%	20
Cochlear implant switch-on	83.33%	55
Cochlear Implant follow-up programming /fitting	69.70%	46
Troubleshooting / repair	59.09%	39



Q11: Audiology services that require a patient visit

Discussion:

The pandemic has increased the importance of remote services. It is still being discovered which services, or which part of which services, are suitable for remote care. As per the responses to this question, most audiology services related to hearing implantation still require an in-person visit. Pre-operative counseling might be the only service that could be performed remotely without reducing the quality of that service.

Conclusion

This survey provides a glimpse of current audiological practices in different clinical setups in different countries. Significant reductions in the number of audiological services being offered and the number of patient visits were reported. Missing or delaying testing and/or treatment may harm patients, especially children and those with CI troubleshooting issues. As shown in the survey (see question 11), most audiological services (still) require an in-person visit. Safely providing these services under the pandemic is a challenge. The level of challenge may vary according to the type of set-up (i.e. big hospital, private practice in a medical center, etc.).

By the end of June 2020, most clinics we surveyed had preventative measures in place. These measures varied; probably due to nation, type of practice, and stage of pandemic. These measures may, however, be only a beginning because it is possible that we will have to live with the SARS-Cov-2 virus for a long time. It is thus imperative that we determine what measures a clinic can take to maximize safety – and confidence in that safety – for both audiologists and their patients. Indeed, considering that patients are hesitant to return to clinics, it is key that the procedures are safe *and* that they are perceived as safe. To meet this challenge, it will be necessary to share our experiences and have in-depth discussions.

Follow-up surveys in focused areas / countries in each stage along the pandemic lifecycle (e.g. accelerating, peak, second wave etc.) may be helpful to observe what the challenges are and what measures audiologists can use to establish a “best practice”.