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[00:00:06] Okay, well. Hello, everyone. Let's just wait a few more minutes and have some of the participants come in. Um, delighted that you're all here. Um, not delighted for the circumstance that brings us, of course, together. Uh, and I can see the participants starting to, um, come on in. So we'll just give them a few more moments. I'll introduce again myself and and our presenter here today. Um, so let's just give ourselves a moment or two. Okay.

[00:00:37] Yes, please.

[00:01:04] The participant numbers are going up. So let's, um, let's keep going on. Let's let them come on in. Okay. Just one more minute. I'll wait till three minutes after the, uh. Uh. Hello, Tim. Yeah. Hi, Tim. Really, really pleased you're here. Of course. Um, joy, Tim is the president of our member organisation, Myanmar.

[00:01:54] Oh, I see.

[00:01:55] And, um, um, A key leader pulling all of these together. Um, right. Okay. Well, I think, um, I think we should begin here, um, in just given the time that we have. So. Hello, everyone. My name is Mike Landry. I'm the president of World Physiotherapy. Um, I'm delighted that you are all here today. And as I just mentioned a few moments ago, I'm of course not delighted for the reason that brings us here today. Uh, this, uh, series of webinars is in response to the earthquake in Myanmar from March 28th, uh, not very long ago. Support for the webinars is a collaborative. These webinars is a collaborative effort, um, by five global rehabilitation societies, um world Physiotherapy, the International Society of Physical Medicine and Rehabilitation, the International Spinal Cord Society, the International Society of Prosthetics and Orthotics, And the World Federation of Occupational Therapists. A big thank you to Pete Skelton from the World Health Organisation for coordinating this response. And of course, always being a stalwart of vision and leadership in in these very traumatic events. Now today's webinar is is regarding fractures and earthquakes. And our speakers, uh, are supported by two world Physiotherapy member organisations. Um, I'd like to introduce to you here, uh, Joy Fang, who is a member and supported by the Hong Kong Physio Physical Therapy Association, who herself has, um, a lot of experience, um, in responding to

earthquakes, uh, specifically, but not only, uh, the Sichuan earthquake that happened in 2008, where she was an instrumental part of that response, um, based out of based in Hong Kong, but responding to the on the ground, uh, over, over a great period of time.

[00:04:00] Kylie Dunn is another one of our, uh, speakers who will come in a little later, uh, from the Australian Physiotherapy Association, who is part of an organisation, a government organisation called Ausmat. Ausmat is, um a national strategy, um, not too dissimilar from uh, UK med um, but Ausmat is an initiative that trains um, uh, cohorts of health professionals to do exactly what we're talking about here, responding to disasters. Um, we. So I'll introduce Kylie in a little while as well. Uh, we'd like to thank tin, president of our member organisation in Myanmar, the Myanmar Physiotherapy Association, and all the other rehabilitation professionals who are attending here today. I know it's a late, uh, in Asia. And so we'll see some people kind of come in over time. And just as a little reminder, this is being recorded and will be posted on our YouTube on the various YouTube channels for your review afterwards. Um, last time we met, we asked you all, uh, to put in your email so that we could be in contact with you if if you're new to this, uh, webinar series. Uh, please feel free to go into the chat, put your email so we can keep you on a roster so that we can be in touch with you, uh, over the next little while. If you've already put your email, no need to do it again.

[00:05:25] Um, but only if you're new and will be assembling that roster. Um, there will. Uh, so we've asked Joy and Kylie to present here today on the basics and the specifics of, um, fractures in, in, in disasters and earthquakes. Uh, they're some of the feedback from previous, the other previous sessions, uh, was maybe creating a little bit more space for some, uh, co-creation of questions and answers. Um, so we we've spoken and we plan to do that here today. Uh, but as we go along, please go again into the chat. Uh, provide some of your, um, your commentary, some of your questions, and we'll, we'll keep track of it. And we have some people on the side sort of looking at that and might be able to provide some, uh, some answers. Um, welcome to Kylie. Um, I see you're here. Um, so. Thank you. Hi, Kylie. Um, we don't see you quite yet. Um, but if you could turn on your. Just for a moment. Um. Hi, Kylie. Yeah. Hey. Uh, I, uh, welcome to the the team here. Um, we just sort of started the introduction. I mentioned you and I mentioned Australia and, um, the initiative through Ausmat. So you're you're very welcome here today. Of course. Um, enough of talk from me and much more talk

from you, the experts in this area. So I will pass it over to Joy. I'll put my microphone on mute and over to you.

[00:06:54] So thank you, Mike, for the very kind introduction. And thanks for having me here. This is Joy Pang from Prince of Wales Hospital in Hong Kong, and I'm glad here to share with you my experience in the Sichuan earthquake, which happened at 2008. And I'm going to share with you some PowerPoint. So let's start. So can everyone see it clear? All right. So um, the following will be the contents. We'll have some rehabilitation timeline, the fracture management options, uh, common complications and physio and multidisciplinary team. And with some illustrative examples. As you can see these two pictures are taken from the earthquake sites. And the lower one is the building being, uh, Are destroyed in this Beichuan earthquake. So talking about the timeline now is post-earthquake. Day 12 of Myanmar. And we are in the second block, uh, the third and 28th day for the core rehabilitation response. At the very beginning, we have some rehab, triage, and some, uh, patients will be rescued and put into ICU. And now, uh, the area need to have some resource allocation, and the multidisciplinary team need to need coming to play. And after that, we will have some transition and discharge planning. And from the fourth to 12 weeks onward, there will be some, uh, training of the rehab team, uh, local rehab team. And in long term planning, uh, there will be some, uh, resource projection.

[00:08:41] And at the end, we want to have some community. Community based rehabilitation. So this one is from the ResearchGate, the internet. And we know that the fracture will involve the whole body and the fatal one will be fracture to skull, fracture to ribs, which probably pinch into the heart, which cause death. And so the top priority is on saving life. And, uh, the common fracture site will be at the long bones such as the humerus, the radius, uh, the femoral shaft, or the, um, uh, tibia or the fibula. Onwards. And we have a role to prevent further complications. And for the fracture, we have our team. Uh, the surgeons will help to fix the problem with some, uh, fixation. And as a physiotherapist, perspective, perspectives. We need to have some maintenance and strengthening. And at the end, we want to restore function and so that the patient will be, uh, reintegrating into the community and try to minimal further damages. So the federal fracture categorisation will hugely varied depending on nature of the events. And usually it's the lower limbs more than the upper limbs, and open fracture will be more than the close one. Open fracture will be a source of infection, especially in the very,

um, muddy or the very, uh, um, uh, destroyed area and comminuted fracture are more than the simple fracture because, uh, it involves a lot of the, um, hard objects probably fall onto the, uh, human body, and there will be many sites of fracture which result in the polytrauma.

[00:10:33] And so also involve the nerve, vascular and soft tissue injuries. And surgical management is for damage control. And if it's concerning with the conservative management, we need to have a time of protected, immobile immobilisation. And also the fixation will, uh, have, uh, internal and external fixation as our choices. And, uh, sometimes need to delay definitive management or the delayed primary closure. So regarding, uh, rehabilitation implication, uh, usually it's, uh, we need to cope with pain on and also loss of range of motion and resulting sometimes, uh, in the muscle weakness, uh, or in long run, it will be some there will be some soft tissue contracture. And the role of rehab team is to, um, maintain the unaffected limbs, maintain the range of motion and keep the skin integrity and also help with the, uh, pain control, swelling, control, positioning, Etc.. So talking about the complications for the acute or immediate complication, there would be some nerve injury as just mentioned. Uh, vascular injury, compartment syndrome, blood loss or embolism, um, deep vein thrombosis as well as pulmonary embolism. So this is an example of the femoral shaft fracture. And uh, if the condition allowed, there will be some, uh, choice of the internal fixation aiming at, uh, facilitating fracture healing and to realign the biomechanics and prevent shortening, as well as allow early weight bearing exercise.

[00:12:30] And, um, complication of the intramedullary nail will include the infection, uh, VTE and refracture during intra op uh joint stiffness and or in later stage implant failure and compartment syndrome neurovascular injuries. So this is an example illustrating the compartment syndrome and the symptoms are usual. The intense pain disproportionate to the injury and the pain will worsen. And the muscle will feel, uh, tight and, uh, distension filling. And sometimes when it comes to compression of nerve, the patient will feel a numbness or even paralysis. And, uh, for urgent treatment, usually it would be, uh, fasciotomy within three hours. And in the context of UK practice, it might be left open. Left open until, um, 72 hours. That means three days. And, uh, if it includes a skin graft, it will be even longer. For delay complication. It may be occurring in the subacute or chronic stage. Uh include the delay muscle or non-union and pressure ulcer, loss of function and infection, osteomyelitis, AVN and nerve injury, injury, etc.. So, um, this is

the logo of Hong Kong Physiotherapy Association. And you can see two snakes, uh, on uh uh uh. It's a symbol of healing. And the role of us is mainly for at the very early stage, such as, uh, in ICU, we will emphasise on the bronchial hygiene and to prevent complications, assist in healing, uh, reduce pain, control swelling and improve the range of motion.

[00:14:37] And also strengthening of muscles or maintenance. And at the end we want to restore function. So you have two pictures concerning our team. So on your left hand side you can see uh when it comes to fracture spine, it may cause a spinal cord injury. And the team members, apart from medical doctors, surgeons, we have, uh, allied health, uh, physiotherapists, occupational therapists, uh, rehab nurses, nutrition, uh, dieticians and and also psychologists. And on the right hand side, I think it's adopted from the States. Uh, we have the patient and family at the centre, and we have different, uh, category of, uh, people helping, including the insurance company, the employer, the, uh, vocational Consult, consular and HMO, PPO. I seldom I seldom come across these terms. It imply the health maintenance organisations and preferred provider organisations. So it's a rather, um, rather uh, comprehensive assisting uh, uh members. So, uh, regarding the problem identification, as I just mentioned, ro officio will try to identify problems such as, uh, risk of chest infection and limb swelling, pain and, uh, risk of contracture weakness. And for functional training, we have the back mobility transfer, uh, training balance and gait abnormality, uh, for the correction of gates or gait re-education and function loss. Uh, sorry for the typo and also the carer educations.

[00:16:32] So I'm going to illustrate to you some examples. Uh, regarding the, um, uh, earthquake victims. So this one, uh, is with a fractured tibia and fibula, and we have the internal fixation being done. And the doctor, uh, the surgeon asked for non-weight bearing walking for six weeks. And this is our, uh, one of our teaching material. Uh, this is me in my uniform in Prince of Wales hospital, uh, the gym and, um, uh, instructing a patient doing his normal walking exercise at level ground and up and down, uh, wooden kerbs, uh, stairs. And this boy, at 2008, he was, um, ten years old. He suffered a fracture of tibia and fibula. And with the external fixation done and for problem identification, we see there is some, uh, swollen, uh, anterior region of the leg and there is pain or tenderness on touching, and the sensation is intact and he suffers some scar adhesion and the right ankle range of motion. Uh, inversion. Inversion is up to half and dorsiflexion is zero. Plantar flexion is um 25 degree and the passive fund is full. And we

have tried walking with him, uh, with the, um, walking aid. And he still can walk, uh, with some mild limping gait. And he mainly uses a wheelchair for moving himself around. And, uh, due to some laceration, we can see some scar adhesion and otherwise.

[00:18:17] And the lower limb is, uh, range of motion is full, and we, uh, ask the patient to do some active range of motion by himself, which he complies and update in 6 to 8 weeks time due to implant failure. There is a loosening of the, um, of the external fixator. So you can see from the x ray, and the tibia is, uh, a little bit angulated. Uh, there's a bowing and there is tenderness and also pain at the ankle anterior aspect. And, uh, according to the doctor's plan, the external fix was off and x ray showed the tibia fracture was healed, and he allowed partial weight. Bear to fully bear. And you can see the little boy, uh, can stand up straight and, uh, the range, uh, gradually increase and walk with, uh, able to walk with a pair of crutches. And this is him, uh, with the, uh, the, uh, picture with the external, uh, fix off. And we asked him, uh, we have taught him with the weight bearing exercise and for the ankle strengthening exercise. So another case is another little boy at, which was an age of 8 in 2008. And he suffered a fracture, uh femoral shaft, uh, tibia. And uh, also, uh, there is osteomyelitis of the left femur. And unfortunately the right humerus, uh, was also fractured and on external effects.

[00:20:02] And uh, he was given a resting splint, which is done by the piano, uh, colleagues in Sichuan. And, uh, he, his grandpa, grandma was very protective and and not willing to allow him to walk and, uh, usually walk with few steps but mobile around in, um, wheelchair. And you can see the x ray and, uh, the knee was stiff with affection. Up to 45 degrees and the quadriceps are tendering due to external effects, and also there is some lack of range of motion in the left ankle and the right shoulder. Normal range is up to 180, but he can move up to third of the range, and the elbow and radioulnar joint can, uh, is full range. And you can see from the picture we are assessing his, uh, range of motion for the ankle and this, uh, surgeon, uh, Doctor Jung is checking his, uh, knee range. So in, uh, so the plan, due to the range limitation, uh, was to remove the external effects and then try, uh, with the, uh, partial weight bear for four weeks because, uh, the fracture was healing, uh, well, and our plan is to ask the patient and has reinforced the self stretching exercise exercise which was previously taught and asked him to reduce using the mobile wheelchair to mobilise himself around and for more ambulation training. And you can see from the picture he is walking with a walking frame and some gentle knee mobilisation exercises given.

[00:21:55] And after the removal of external effects, the range extension is good and flexion is from 45 degree up to 65. And we want to train the local therapists to regain his range and also for his muscle strengthening. And at the end he will uh, is allowed to back to school. So, um, for the Sichuan earthquake, the model from mainland is, uh, what we call the n v model and it's is NGO, H is health department and V is volunteer. Depending on the time frame and also on the resource allocation, which is quite successful in getting our patient from acute, chronic, acute, chronic to the phase returning to the community. So it's a CBR community based rehabilitation from the institutional based rehabilitation to community based rehabilitation. And the way forward and challenges, we like to, um, have further training for the local, uh, professional or healthcare providers. And, uh, regarding the hardware, try to, uh, see if there's some, uh, earthquake, earthquake proof, uh, uh, buildings as far as possible. I think it's, um, our aim and this is our of our scope, but we still want to minimise the, um, minimise the, uh, hazards or minimise the damage done to the victims. So, um, this is my presentation. Thank you. So this is acknowledgement. Thank you. So. Um, is there any questions? Yes.

[00:23:53] Well, thank you very much, Joy. Um, maybe if you can just stop sharing the slides and. Yes. So thank you so much for that. A lot of really interesting information. I appreciated the the system approach that you're taking to, um, you know, resolving fractures in this case. But but you're quite right that the systems become very compromised. Of course, in, in an earthquake and a disaster, as we all know. So it's I think it's you're coming at it with a couple of different angles. What we might do if it's okay with you, Joy, let's just pass it over to Kylie and I'll ask everyone to think about some questions. Put your questions in the chat. Uh, we'll we'll we'll take we'll we'll pull them. We'll keep, uh, we'll keep track of them. Uh, and then, um, we'll pass it over to Kylie for, you know, ten, 15 minutes, and then we'll come back and try to have the conversation as a group. So, uh, if that's okay with you. Joy. Kai. Kylie, let's go over to you now.

[00:24:47] Sure. Thank you. Sorry for being a bit late. Um, guys, um, I don't necessarily have a presentation to put up in the slide. Um, um, just so we can maybe just follow on from the stuff that Joy was saying, to put it in the context of disasters. And what I recently experienced in Vanuatu in December is you you may see more ex-fix than

internal fixation. Um, and that can be just sort of an immediate stabilisation. It could be the definitive treatment or it could just be a temporary measure. Um, and I think it can be probably quite confronting for patients, they can look really scary. There's good and bad things about ex-fix, but I think just in terms of some of the challenges and the things to focus on is getting your weight bearing and your range of motion orders. So whether that's in notes, in surgical notes, whether you can be on ward rounds, um, or finding a way to just have updates and team meetings with the surgeons, just so you want to protect the the surgery and protect the fracture as much as possible. But we know that as physios and rehabilitation specialists, we're all about movement. So we want to get the patients up and moving as soon as possible. But we also want to be able to protect the surgery that's been done. Um, and there may be it's quite common to have like Joey said Polytrauma. So multi joints, multi limbs affected and that can be a bit challenging. So just being able to figure out exactly what you can move safely.

[00:26:18] Um, and focusing on function early. So um, if we're doing functional movements and that's helping with strength and that's helping with range. Um, but I really think the biggest role that we have is education. Um, and that's education for the patients. So, um, that can be, you know, reassuring advice on pain management and positioning. Um, but also helping the patient know what to look out for in terms of complications. So, um, things like infection can be quite common, especially if there's, um, open fractures. Um, and like Joy said, compartment syndrome. So being able to manage swelling and teach patients what to look out for. So, you know, red, hot, swollen joints or increasing pain, new pain. Um, anything like that. Um, if you can get the patients on board and also teach their family or whoever they've got around them. Um, it's an extra set of eyes, and they're your extra set of hands for rehab, too. So, um. I think, yeah, they're the biggest things that I found is that making sure that you, you know, your weight bearing orders, you know what you can and can't do, moving everything as much as possible. Um, the other thing that you might see is, is traction. And the traction can be, um, a little bit more complicated because then we can't get the patients out of bed. So particularly for long leg fractures. So, uh, long femur fractures, possibly hip joint or sometimes pelvic fractures that you might find them in, in skeletal traction. So we have those extra things to think about in those cases about pressure areas.

[00:27:56] So not being able to move. So heels and buttocks particularly um but again we also have the rest of the body that we want to try and move, you know, upper limb exercises, being able to sit up, um, you know, again within the limits. So you've got to have a look at that hip range and what you can and can't do. Um, but just for the extra challenge, if you end up with some traction patients is just managing the the pressure areas and preventing deconditioning in all of the other joints as well. Um, what else did I have written down? Um, I think they're my big takeaways. Is that, um, obviously, you know, you guys have gone through this earthquake too, so please look after yourselves. Um, I hope that I hope that your, um, staying safe. And so with your families as well. Um, because the patients need you as well. So please look after yourselves. Um, it's obviously a bit of a traumatic experience, so there might be some, um, you know, some stress, uh, to the staff as well as well as to the patients. So trying to work around that, um, can be challenging, but I think rehab are a really great, um, resource for patients because we're able to spend that extra time with them, develop rapport. You can be really big in reassuring and guiding them through their rehab. And we're all always function focussed as well. And I think that's good for patients talking about what the end goal is, um, how how they'll manage where they're going to discharge to.

[00:29:28] So thinking about the environment and like Joy was mentioning with steps, you know, and terrain, um, and things like that to think about. So just sort of to summarise, my big takeaways are the education so that, you know, the patients might only be with you for a short time. Um, so we want them to be able to self-manage. Um, so monitoring for infections, compartment syndrome, focusing on function and getting people moving but making sure we're doing that safely. Um, so that's talking to your medical teams and your surgical teams about your weight bearing status. Um, yeah. And the other injuries too. So I know that this was a focus on fractures. And sometimes we can have what I call distracting injuries. If someone's got a big fracture with a bone sticking out, everyone knows that's an emergency, and that needs to be fixed, but it may not be that someone has looked at the other side and maybe there's a significant ligament damage to the other knee. So, um, even though you might have a big injury, having a top to toe approach with your patients so that you can see, does anything else hurt? Have a look at their other joints and see if there are some other injuries that maybe, um, that your physio expertise can help out with. Um, but I think yeah, there, there my basic tips. Um, I hope you're all, um, staying safe and happy to answer any questions.

[00:30:47] Okay.

[00:30:48] Yeah, well, thanks a lot, uh, Kylie, for that. Um, some real recent experience that you're describing there. Um, there's a few questions that are starting to come in, so I'll, I'll encourage everyone to please go ahead and do that. But, uh, a couple of questions if I'll just start off here. Um, and it's kind of for the two of you. Um, I myself have been in these circumstances before, but speak a little bit about the intensity of rehabilitation that might be different in a disaster earthquake scenario than than in a general hospital or usual setting, because the way you're describing it, the, the, the, that whole continuum is unlikely to be there. Um, there is no HMO. Um, it's going to be a complicated scenario. So, um, and you don't have we rehabilitation is not going to have the most ideal time with that patient. So how have you managed to balance, um, being aggressive? Uh, level of intensity. Are you looking at, uh, maybe if you could share some experiences specifically with fractures. And then I have this other question, but maybe. Kylie, can I ask you to start off with that, please?

[00:32:03] Yeah, sure. Um, and that's where the the education is key. And the patients families are, are your rehab team. So it might be that you're in. Your individual sessions are a little bit shorter, but I think that we're discharging the patients earlier. So there's a big focus in a disaster with that huge influx of new injuries to get people out soon. So patients may be in a non-disaster setting. You might keep in rehabilitation for a bit longer. They need to be moved out as soon as they're safe. So, um, the adding to your rehab team is teaching the patient so that they can do independent exercises if things need to be assisted exercises, teaching family or friends or whoever they've got around them. Um, and giving that, that specific advice of how many times a day to do this or how to progress. So using pain as a guide or if you've been given time frames. So you might actually be told by a surgeon, you know, non-weight bearing for two weeks and then progress, you might not know that you're going to see that patient for follow up at two weeks. So any information that you have that you can give those patients that education so they can maybe help self progress. Um, great. If you can write it down. It's a stressful environment. Um, and there might be, you know, a lot of information and time frames. Um, but I feel like in terms of helping with intensity of rehab, it's, it's being able to engage the people around the patient.

[00:33:36] So I agree with Kylie that education is really, really, really important because, uh, the family members and also the patient is, uh, in the team in the centre of the team. And at the beginning of the, uh, disaster, we, we know a lot of, uh, thing has been damaged. So regarding the resource allocation and also, uh, regarding team members, uh, how each one will contribute to what parts of the, uh, rehabilitation say, uh, some protective, uh, Cast need to be done for the conservative healing of a fracture. So it must be a very, uh, a secure immobilisation cast or, uh, how the patient will know what can be done or cannot be done for the, um, fracture healing and also, uh, for maintenance. Also important because the unaffected limbs need to be, uh, maintained to prevent further damage or secondary damage. And also, as Kylie mentioned, uh, we are always, uh, function focussed. So, uh, whatever function being preserved, we need to maximise the use say, uh uh, despite this is a fracture case. Uh, sometimes, uh, we see a lot of spinal cord injury patients. They have only upper limbs, uh, left. So they know how to do the transfer with only the upper limbs. So we need to maintain the, um, uh, the good parts and also to try, uh, helping the damaged or the, uh, the operator parts.

[00:35:22] Speaking of spinal cord, I think, um, it'll be this Friday. We'll mention that at the end, there'll be a session, um, from our Physiatry group, uh, around that, um, I'll ask the question, a question that's coming up from the chat there, but I just my own reflection is, um, um, the in terms of the intensity, I think. And by the way, I would like to hear from any of the, our colleagues in Myanmar who might be experiencing this today, this morning. Now, uh, not in theory, but in reality, because, uh, I have found myself in many, many environments where, uh, you were needing to push the patient well beyond what you would normally do, because otherwise there is no next step. And so I just I'd like to hear as I ask the next question, but I'd like to hear from anyone who's in Myanmar right now, some of our colleagues, to maybe comment a little bit around this, this notion of how intense should you approach, um, some of the patients. Um, given that, uh, the supply demand is, uh, fairly unequal. Uh, question interesting question coming up here, um, from Taslim. Um, how how can Physiotherapy help during the acute care phase in, in a field hospital? Uh, not not in not in a large centre or triage centre with many different people, but, uh, but in, in a field hospital where you might not have all of the components that you wish. What would be your decision making and approach? Uh, again, given that there's an incredible demand and very little supply. So, so maybe if you can comment on that inpatient management of fractures.

[00:37:01] Yeah. I think if you focus on function you're going in the right direction. Um, I know sometimes if you wanted to do in a non-disaster setting, you might want to do a detailed examination and look at joints and ranges of motion and individual muscle strength. But you might be pushed for time. And if you're looking at function, you can assess those things just sort of in that functional aspect. Um, you know, if it there might be conservative management patients. So whether you have an involvement there in casting and splinting as well. Um, they're just making sure you can do the little things to oedema management, making sure rings and jewellery are off, you know, hands that are casted. Um, but if you're keeping a focus on function, then you're kind of helping all of the global systems, and then you're also helping the patient flow and the patient movement. Keeping everything goal orientated, um, would probably be my, my biggest advice, um, and work with the team that you've got. So you've whether you've got doctors there, whether you've got nurses there, whether you have other rehabilitation teams there, other team members, um, being able to do things together, um, you might be able to, um, help a wound nurse briefly with a wound so that then you she can help, or he can help you get the patient up and moving. So if you can, there might be some, might be some teams that you can develop within that hospital where you guys can work together to help each other be efficient. Um, so I'd say look for those little, um, those teams to build, um, depending on who you've got with you, um, and where you're working.

[00:38:38] And talking about the, um, how physio can help with the acute care because as Carly mentioned, the resource may be limited. So, uh, probably at the very beginning, we need to, um, manage the expectation of patients. Sometimes they will have high expectation of what they will get from you, uh, from us physio and in fact, the resources we as kind of human resources or what they have left from the, uh, from the damage is maybe scarce. So, uh, if there is still. Net network or internet still network and they still got a phone, probably they will be able to contact or connect with the, um, outer resources. Uh, there may be a lot of, uh, video or some rehab, uh, footage on website, which they can they can have some, uh, connection and get some hints from, uh, those who have similar condition with them. Probably. But, uh, it depends on, uh, how they expect. And also if the, uh, the resources is, uh, available. Uh, what I just mentioned is the internet. So the accessibility.

[00:39:56] Yeah. Yeah, it is dependent on, on, uh, you know, internet capacity for some of those things. But let me just follow up. Kelly, I think you were going to say something. So let me ask the question. We'll go to you and you can um, but some of the what what do you think about discharge criteria in these cases, in these scenarios where you are there with a patient? Yes, you're looking at function and hopefully that, you know, some basic principles like mobility or self-care or even a couple stairs. I remember in Nepal, one of the one of the rate, one of the stumbling blocks for discharge for patients out of the acute phase was it was unclear to the surgeons whether the patient would be, well, somewhat safe out in the community. So we came up with a series of thresholds when a patient, for instance, could do five stairs gone, you know. So can you comment a little bit on the discharge criteria. And then maybe you were going to add a little bit there too. So Kiley, over to you.

[00:40:58] Yeah, I'm always going to add is don't forget your basics like things like hand hygiene and preventing infections. They're not patient specific or physio specific, but all of those little basic things, any complications you can prevent is better for the patient and is better for your patient flow. Um, yeah. In terms of discharge, I think you need to have the conversation early with your patient about where they might where they're going. So is their home okay? Are they going to home? Are they going to family's home? Are they going to possibly a shelter? So that's going to help guide you because you need to know what what the patient needs to do. Um, that, you know, um, we've had patients where you might discharge home to bed rest, where family are actually going to need to transfer them to a bed, whereas that's not something we would do in a hospital, you know, in a non-disaster time, we would keep them in our care until they're able to get up and moving. So there are sorts of things that I'd come across that I hadn't thought about until I was sort of doing some work in the disaster space. So yeah, you might definitely need to, um, rethink your discharge criteria. I think safety is the key thing, but the the first part is finding out what their environment is like and doing that early. So then you can have those conversations of early, okay. Is it okay for the patient to still be one assist because they're always going to have somebody with them. Do are stairs a must or do they need to be able to get up a hill? Um, so, um, you know, um, uneven terrain, again, using being able to use crutches on a hospital floor or a room floor is very different to being able to use them on a rocky ground. So if you have those conversations early, you can set those goals early and they will be different for different patients. Um, yeah, that would be my advice.

[00:42:49] Yeah. That's brilliant. It reminds me, um, when during the the earthquake in, in Nepal, One of the initiatives that was created between high W.H.O. and the International Organisation for migration, IOM, was a step down facility. And in that step down facility, it replicated the three major areas of Nepal where people were going to be going back to. One was very hilly. One part of the step down. So it mimicked. And so they had short term high intensity, like very high intensity because they got two weeks and they had to keep moving. So um, so good points. I just wanted to add that there is a question here that you kind of answered, but let me just go on. Erika Blakely asks, um, some of the considerations going to these temporary shelters or other situations other than home that may not exist anymore. And so for sure, it's education. It's self-care. But what are some of those maybe stories that you can help explain the complexity here.

[00:44:00] I think one of the most basic things, um, is even is bad. It might be a mat on the floor as opposed to, you know, a bed. And that can be very different, um, mobility getting on and off the floor, especially if you're non-weight bearing on a leg. So again, asking those questions early so that that's something you want to practice. You don't want to send a patient home and then go, oh my God, how am I going to do this? Um, so and that will give you different clues on different things to work on intensity of rehab exercises that patients can do. Um, yeah. And things like, um. What would be the other considerations? Yeah. The type of the people they have around them. Um, again, access, um, whether there is a mobility aids there or do we need to do source mobility aids for people? Um, and there might be somebody within your team or within your service that can go out and do some scouting. So it might be trying to get in contact with is there NGOs that are running refugee shelters? Can you get information from those people? Because it might be that your patient hasn't been there yet. They don't know what they're going to go to, but you might be able to have someone within your organisation or whether you can reach out to what are the services that are in the area that are running the shelters to try and get as much information as you can?

[00:45:28] Yes, I recall.

[00:45:29] I recall the shelters being established in the, uh, Sichuan earthquake, which is, uh, all the shower is outside the shelter. So the shower or the area they do their cooking or the area they do their cleansing or are outside? Uh, the shelter. The shelter

itself is only, uh, a bed and, uh, a place to sleep, right? So depends on how the shelter was established or how it is arranged. And just as Mike and Kylie say, any obstacles we need to go through and is there any pre-planning? Say you can take some, uh, video of photos for, for the, um, for the physio to have a look. So probably before the patient will be discharged to the, the the shelter, we can do some specific training targeted to the area and also depends on the victim's or the patient's ability. So if this is an elderly uh, still managed to survive, will he be uh, located at some area which more, uh, convenient for his cleansing or whatever? So it depends on how, uh, the, um, shelter is arranged and also how the patient will have the ability to cope with it, so some pre-planning is needed.

[00:46:56] Another question comes in through the Q&A from anonymous here. Um, uh, what kind of. You spoke about education quite a bit. Um, I think all of us here would agree with that. But it's the, the, the the the detail is where this becomes pretty, pretty challenging translation level of education, language barriers, etc.. But somebody asks here what kind of education materials are useful to deliver, and are there any open resources that can be used or reused? Thoughts?

[00:47:29] Um, I think the the, the key areas of education, I think are um, around in complications. So being able to know that your patients can recognise infection, um, is a key one. So that red hot swollen limb, whether it's around a wound, around a pin side of an ex-fix or, um, somewhere on their body if they're feeling unwell. So feverish. Short of breath, you know, chest pain, sweating. All of those things are signs of, um, possibly signs of infection, of DVT. So again, swelling, red, hot, swollen limb, you know, chest pain, shortness of breath might be indicating, um, a pe um, the compartment syndrome. Again, you probably see the theme here. Compartment syndrome. You might get colour change to the limb swollen. Um, pain. That's a new pain that's disproportionate to their injury. Um, loss of sensation. Those are really key, um, sort of complication education that I would give. Um, and the other sort of more physio specific education is making sure the patient is clear on what they can weight bear, um, and how much they can move. So is there any restrictions on joints or weight bearing, um, And with your exercises. Yeah. Give them, um, give them reps. Give them times of day to do them. Is it, is it a three time a day thing? Is it an every hour. So thinking about someone with a nerve injury that might have had a neurapraxia, maybe there's a wrist drop and you actually want them to do that ranging and stretching of every joint.

[00:49:09] So just be specific that they know every hour to move their limb or move their joints through full range. Um, and if you can, being able to give people progressions so that, you know, you might only be able to do, you know, ten lifts of your leg because that's all your strength will let you do, but letting know that people can self progress. So trying to add one each day can be like an easy repetition or using pain as a guide. So, um, you might be ex talk to your patient about when you start moving stiff joints that you might, you know, a four out of ten pain is it could be tolerated and is acceptable as long as the pain goes away, you know, within an hour or two after the exercise, so that they know that they can push enough till they get a little bit of pain and a little bit of pain is safe. Um, so with. Yeah. So with your physio being specific about exercises and reps and things that they can use to monitor and then self progress so that they're not just leaving with one set of exercises.

[00:50:12] So on the on the call here today and through the series, it's not just PT, it's sort of an interdisciplinary approach. So so are there resources though specific that would say exactly what you said that could be reused or used in the case of Myanmar that, you know, um.

[00:50:29] So I do know Physiopedia is a free website that has, um, a few modules on rehabilitation in disasters. And I know they have a fracture module there, which goes through some basic sort of fracture education and assessment. Um, and then that is obviously a physio focus, but then it goes through assessment and rehab. Um, so I think Physiopedia is a good resource that, um, I would point people to, um, because they do have those, um, disaster specific modules as well as general education. Um, and you can find that through a Google search. We'll find that one for you.

[00:51:07] Yeah. Good point. Uh, Tim, I know you're there. So, Tim, why don't you why don't we get together? Why don't we talk about this and we can create, uh, a one page material if that would be useful? Um, because I think we need solutions. You probably need solutions now. Not not tomorrow. So. So let's see if we can create maybe something that could be used and reused, uh, to help. Um, in some ways, this, uh, this passion. Uh, yeah. Somebody. Yeah. It's physiopedia. Yeah. It's, uh, it you can find it there. Um, uh, okay. So coming to the sort of the end here, there. But there was a question from Tim and it maybe is specific to Australia, but um. Uh, it says here, I guess

at some point an Australian physiotherapist came and gave lectures on emergency physiotherapy. So can you comment on maybe that subspecialty in Australia, does it exist? Does it not exist? What are the parameters of it?

[00:52:04] Yeah, that's actually where I work. I'm an advanced practice physio in an emergency department here in Australia. So um, yeah. So we do have physio in the emergency department. So a lot of my job is fracture management. Um, and just at a basic level, the way that works, um, being an advanced practice is if you've, if you've hurt your arm, your leg or your back, um, you don't have to see a doctor. So we work kind of like a, like a musculoskeletal specialist within the Ed. And we can do your admission, your discharges, your referrals, all of your management. Um, so yeah, that certainly is a is a growing area of physio in Australia.

[00:52:46] Joy. Do you want to make maybe a comment on the extent to which in your setting that exists?

[00:52:51] So in emergency physio in Prince of Wales Hospital is at A&E department. So it's totally different from the post-earthquake environment. So just uh, echo Kiley's uh, saying that it's mainly the fracture, uh, fractured ankle or acute back springs is not the in the context of a post-earthquake. But I'm I'm happy to have Sheila's question here. So actually is there any physio facing uh, specific issue when they're working at this, uh, post-earthquake, uh, context?

[00:53:35] Well, yeah. So, uh, if, if anyone wants to maybe put a little bit of information in like I said in my response there to the chat or to the Q&A. Please do so. Um, and we can kind of take it from there. Uh, so we'll wait for that to pop up. Uh, just to kind of, uh, go on a little bit farther to, um, what you said. Um, so, so it'd be interesting, Tim and others, uh, given the high prevalence of, um, sudden onset disasters in Asia. Uh, I've always wondered whether it should be more of a entry level competency or or to some extent, the competency of physiotherapists to be practising in, um, not necessarily a quaternary or tertiary care level like Kylie is, but but in these particular circumstances, so that that's something we can kind of think about. Um, and uh, you know, wonder if that that would be something, uh, personally, I believe that to be the case, especially if you if you are in Asia. Um, these these events, uh, tend to happen at a higher pace, let's say, than in other than Ireland, let's say. So, um, just I'm not seeing any questions there.

So. And we have about four minutes left. Let me, let me just take one moment and just ask again if there are any other questions.

[00:54:59] Um, I'm not seeing any. So maybe I'll take this opportunity here. Uh, to say a big thanks to Joy and Kylie for for, um, spending a little bit of time with us here today. Um, uh, again, just to review, if you haven't put your email either today or last week or in the previous session, please do so so that we can kind of get some information out to you. Um, in my opinion, something quite tangible, uh, from this could be something related to the educational material that could be used for basic management. I think it exists, actually. I think it's through all kinds of different areas, but maybe to have that in front of our colleagues in Myanmar would be would be useful at this stage. Um, of of the response. Um, just to highlight later this week, it'll be on Friday that we have a session, uh, on spinal cord injury, which will be delivered by the International Society of Physical Medicine and Rehabilitation. Uh, not to be missed. Um, all of these, uh, are going to be, um, collapsed and put on YouTube, as I mentioned, so that we if you haven't caught all of the information, you can review it. If it's on YouTube, you could probably also put a different language as a as a subtext.

[00:56:17] Um, and beyond that, I think we will call this to an end. Yes. Thank you. Heidi put in, um, the, um, the link for next week or sorry, for Friday. Um, so please, please put that into your diaries and calendars and, um, that will be, uh, good. Okay. You can see here Erica put another message, Disability and Emergencies Presented by Humanity and Inclusion on the 21st of April, 7 p.m.. Let's get all this onto, um, sort of a curricular map and we can take it from there. But thank you, Erica, for adding that. And I think, Heidi, if you can give me the thumbs up that we're all set, we're at time here and I'm not seeing any new questions come up. Um, so if we're all set. Thank you. Okay. Well, once again, thanks a lot, Joy. Thanks a lot, Kylie. Thanks a lot, Heidi, for arranging this. And, uh, sending, sending our warm wishes to our colleagues there in Myanmar who are not, in theory, talking about this. They are, in practice, doing it. So, uh, Godspeed. And we'll talk to you on Friday. Oh, for Kylie, enjoy. Don't leave yet. Just stay for a moment. But for the rest of you, you can leave. You can leave.