

综合日间康复中心老人防跌治疗及训练评估

Evaluate the Effectiveness of Comprehensive Fragility Fracture and Fall Prevention Program in Comprehensive Day Rehabilitation Centre

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骨折对社会影响 Social Cost

- 增加公共医保开支
- 增加家庭财政负担
- 对家人或者朋丈增加心理压力
- Increase medical care expenditure of the government
- Increase financial constrain of patient's family
- Increase burden of their family and friends

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骨折对个人影响 The Human Cost

- 降低生活质量
- 减少活动能力
- 减少自信心
- 增加心理压力
- 增加焦虑
- 失去部份生活角色
- 更加依赖别人帮助
- Decrease quality of life
- Decrease activity
- Lower self-esteem
- Increased depression
- Increased anxiety
- Diminished social roles
- Increased dependence on other

(Gold, Bone 1996)

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活动能力 Morbidity

- 1/3骨折生存者可以恢复全部功能
- 1/3生存者需要依靠拐杖走路
- 1/3生存者只可坐轮椅
- Only one third of survivors return to prefracture levels of functioning
- Another third need aids for walking
- A third become wheelchair or bed bound

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髋关节骨折 Hip Fracture



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髋关节骨折的影响

Consequences of Hip Fractures

- 髋关节骨折对老年人影响比较严重
- 6个月内死亡率大约是20%
- 跌倒骨折以后，老年人心理压力非常大，没有信心，害怕再次跌倒。
- Hip fractures are serious events with serious consequences
- Mortality
 - About 20% of people who fall and fracture their hip die within 6 months
- Psychological damage
 - Fractures often lead to loss of self-esteem and fear of falling or injury

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脊柱骨折 Vertebral Fracture



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脊柱骨折 Vertebral Fracture

- 脊柱后凸出
- 平衡力变差
- 肌肉易容疲劳
- 增加跌倒风险及骨折
- Kyphosis
- Change in balance
- Increased muscle fatigue
- Increased risk of falls and additional fractures

Ross et al, Annals Int Med 1991

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综合日间康复中心

Comprehensive Day Rehabilitation Centre

- 综合日间康复中心结合多个不同专业，可以为病人提供全面治疗和康复服务
- 病人可以得到最好治疗和康复效果
- Comprehensive Day Rehabilitation Centre provide more efficient and multidisciplinary approach to patients
- Patient have better outcome and higher independency after intensive training

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综合日间康复中心

Comprehensive Day Rehabilitation Center

- 手术后病人尽快出院回家，不单节省住院费用，也可以在中心继续接受一站式康复服务
- 综合日间康复中心采用多专业全面治疗模式，包括骨科医生、老人科医生、作业治疗、物理治疗和护士等等
- Extend care from Hospital to Community
- Multidisciplinary Team Approach including orthopaedic doctor, Geriatrician, Occupational Therapy, Physiotherapy, Nurse

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骨科专科医生 Orthopedic Doctor

- 提供骨质疏松症药品(Bonviva)(病人药费自付)
- 调整病人用药数量
- 跟进病人用药情况
- 提供止痛药品
- Initiation of osteoporosis medication
- Modification of medication (poly-pharmacy)
- Osteoporosis medication compliance enhancement
- Pain management

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老年专科医生 Geriatrician Doctor

- 大部份病人都是高龄多病老年人
- 他们需要专业老年科医生提供内科治疗
- Majority of patients are elderly who have multiple medical problems
- Management of medical problem and prescription drugs

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物理治疗 Physiotherapy

- 走路训练
- 平衡训练
- 大小腿肌肉力量训练
- 选用合适助行器及教导使用方法
- Walking training
- Balance training
- Lower limb strengthening
- Walking aids prescription

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作业治疗 Occupational Therapy

- 日常生活自理训练
- 家务训练
- 家居安全评估及改建
- 髌关节保护垫
- 改变日常生活容易跌倒行为
- ADL training
- IADL training
- Home safety assessment and modification
- Hip Protectors
- Modify client's risky behaviors in ADL or IADL

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病人来自 Patient Source

- 雅丽氏何妙龄那打素医院
- 大埔康复医院
- 那打素骨科专科门诊
- 沙田威而斯医院
- 大埔救世军老人中心
- Alice Ho Miu Ling Nethersole Hospital
- Tai Po Hospital
- Specialist Out Patient Clinic
- Prince of Wales Hospital
- Tai Po Salvation Army Elderly Centre

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病人会议 Case Conference

- 多专业一起做决策
- 制定治疗或训练目标
- 交换病人资料
- 跟进病人康复进展情况
- Decision making
- Training goal setting
- Inter-flow of information
- Monitoring of progress

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家訪評估工具

Safety Assessment of Function and Environment for Rehabilitation [SAFER]

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家訪評估工具 SAFER TOOL

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髌关节保护垫

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髌关节保护垫

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长者防跌锦囊

长者防跌问题

摔跌是长者普遍的问题，根据一项由香港大学在 2005 年之社区调查显示，本港大约有一半长者便有一百九十八人跌倒，跌倒可带来许多后遗症，例如：减低活动能力，自我照顾能力下降，需要入住院舍等，由此可见长者跌倒是一个不容忽视的问题。

職業治療

職業治療師會照顧到長者之身體狀況和環境之配合而作出評估及訓練，希望長者能應付日常生活之需要。家居評估和環境改善可協助減少外在環境導致長者摔跌的風險，對長者日常生活方式，職業治療師也會作評估和建議減少長者進行一些高危險動作，例如：急轉身取物，後後不穩固之傢俬作支撐。

甲. 家居安全

- 保持通道暢通無阻，物件要擺放整齊，避免家中雜物向斜側。
- 避免絆住常用品及雜物擺放在高處，需要舉高拿取，易產生危險。
- 保持家居光線充足。

乙. 慎防跌例

- 浴室及廁所門口，避免使用地毯或家用防滑地墊。
- 廁所及廚房門框增高，出入需靠扶手。
- 步行時，穿著防滑鞋及切勿匆路跌絆。

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長者防跌錦囊

丙. 改善家居環境建議

一. 建議及設計適合長者的家居的輔助設施, 如安裝合規格的扶手。



二. 浴室地面使用防滑地磚或加防滑膠墊。

三. 沖涼浴缸或坐缸高度適中, 如有需要可使用適當的沖涼椅或浴缸鞍等。



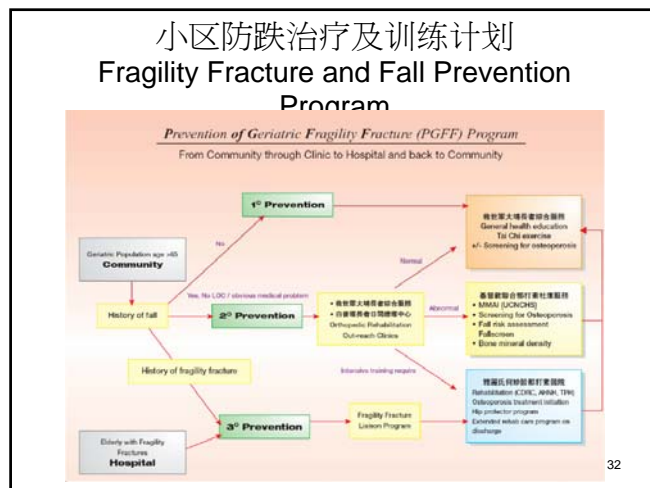
十大家居防跌陷阱	
家居防跌陷阱	職業治療師建議
地板濕滑	盡快抹乾
洗手間及有樓梯裝	安裝穩固扶手
樓梯踏台	更換踏台
門欄加高舊仔例	修改門欄
樓梯及保欄太高或太低	改同高度適中的保欄及樓梯
光線昏暗	更換較亮燈泡
使用容易打滑地布或地氈	選擇適當防滑地氈
地毯鬆開或起絆例	選用中地毯或定期保養
家裏多雜物阻塞通道	保持通道減少雜物
梯上擺放或有鬆動物件	將此物件置於高或找入箱箱
地毯或地磚破爛	盡快修補

以上資料, 如有任何疑問, 請與職業治療師聯絡
電話:



香港職業治療學會編印

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研究方法 Research Method

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- ### 选用病人标准 Patient Inclusion Criteria
- 因跌倒骨
 - 比较容易跌倒
 - 简短智能测验15分或以上
- Had recent incident of fall with fragility fracture or injury (Hip, pubic rami, wrist, shoulder, spine collapse)
 - High risk of fall patient
 - MMSE ≥ 15/30
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- ### 不选用病人标准 Patient Exclusion Criteria
- 简短智能测验15分以下
 - 因其他病不能完成治疗
 - 拒绝接受治疗
- MMSE < 15/30
 - Drop out due to readmission
 - Refuse
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- ### 评估工具 Outcome Measurement
- 功能独立性检查(FIM)
 - 防跌自我效能(FES)
 - 简短智能测验(MMSE)
 - 走路时间测量(TUGT)
 - 老人身体移动量表(EMS)
 - Berg's平衡量表(BBS)
- Functional Independent Measurement (motor)
 - Fall Efficacy Scale
 - Mini Mental State Examination
 - Time Up and Go Test
 - Elderly Mobility Scale
 - Berg's Balance
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计划开始了20个月 Programme Run For 20 Months

- 由2006年11月到2008年7月
- 总共有122病人参加防跌治疗及训练课程
- 54病人完成全部课程
- 平均参加16.9节训练课程
- 每星期两节共8星期
- November 2006 to July 2008
- Total number of patient 122 attended the program
- 54 patients complete pre, post and 6 month follow up
- Average attend 16.9 sessions
- Attend training twice per week with average 8 weeks

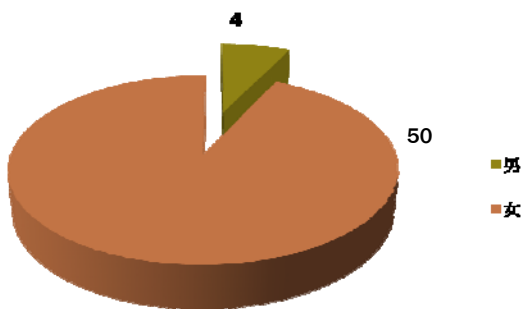
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病人资料 Patient Characteristic

- 最小61岁，最大92岁
- 平均年龄79岁
- 女比男多
- Age range from 61 to 92
- Mean age 79
- Female more than male

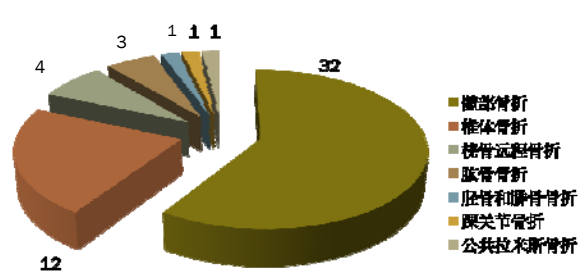
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Male and Female 男女病人比例



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骨折種類 Fracture Types



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骨折種類 Fracture Types

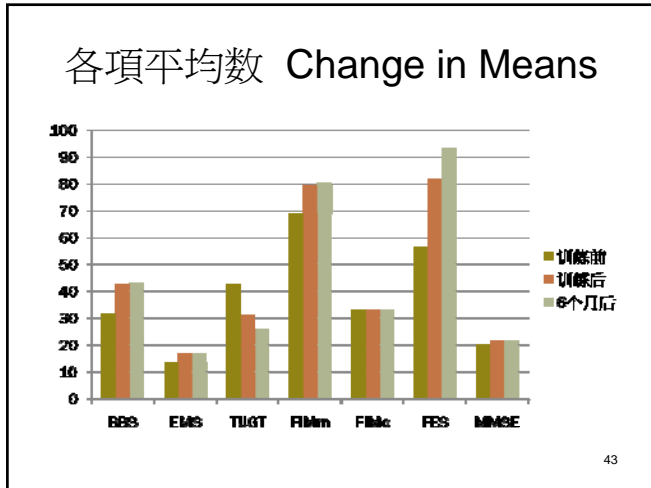
- 髋部骨折 (32)
- 椎体骨折 (12)
- 桡骨远端骨折 (4)
- 肱骨骨折 (3)
- 胫骨和腓骨骨折 (1)
- 踝关节骨折 (1)
- 公共拉米斯骨折 (1)
- Hip fractures (32)
- Vertebral fracture (12)
- Distal radius fracture (4)
- Humerus fracture (3)
- Tibia and fibular fracture (1)
- Ankle fracture (1)
- Public ramis fracture (1)

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统计分析 Statistic Analysis

One Way ANOVA

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One Way ANOVA

		Sum of Squares	df	Mean Square	F	Sign.
BBS	Between Groups	4176.160	2	2088.080	13.557	.000
	Within Groups	24489.500	159	154.022		
	Total	28665.660	161			
EMS	Between Groups	396.494	2	198.247	12.222	.000
	Within Groups	2579.037	159	16.220		
	Total	2975.531	161			
TUGT	Between Groups	7173.970	2	3586.985	5.420	.005
	Within Groups	99264.043	150	661.760		
	Total	106438.013	152			
FIMm	Between Groups	4406.293	2	2203.146	10.383	.000
	Within Groups	33100.097	156	212.180		
	Total	37506.390	158			
FIMc	Between Groups	2.545	2	1.272	.206	.814
	Within Groups	963.870	156	6.179		
	Total	966.415	158			
FES	Between Groups	37326.585	2	18663.292	16.843	.000
	Within Groups	172859.654	156	1108.075		
	Total	210186.239	158			
MMSE	Between Groups	60.492	2	30.246	1.172	.313
	Within Groups	3793.881	147	25.809		
	Total	3854.373	149			

结果 Result

- 综合日间康复中心提供全面的训练课程，可以提高长者日常生活自理能力、活动能力、平衡力及防跌信心。
- 当结束康复中心训练以后，他们继续在家做训练，所以他们功能可以保持6个月，防跌信心越来越大。
- 半年以后，只有4例长者跌倒，没有一位有骨折
- Intensive training program in Comprehensive Day Rehabilitation Centre could improve significantly Independence in ADL tasks (FIM Motor), Mobility (EMS), Balance(BBS), Confidence of the patients (FES).
- This significant improvement last more than 6 months after discharge and their Fall Efficacy Scale was continue to improving.
- There is only 4 cases had history of fall in 1 year, but no fracture occurred

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结论 Conclusion

- 研究结果显示长者参加综合日间康复治疗及训练之后，可以提高长者日常生活自理能力、活动能力，增强长者防跌自我效能，提高长者防跌意识，减少因跌倒骨折机会。
- The results of the study concluded that the Comprehensive Fragility Fracture and Fall Prevention Program could improve patient's ADL function, functional mobility, and enhance their fall awareness and self efficacy in fall prevention as well as prevention further fall and fracture

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研究限制 Study Limitation

- 没有对照组病人
- 抽样方法不是随机
- 病人数量少
- This study did not have a control group due to ethical consideration as all patients discharged from hospital need to attend this Fall Prevention Program.
- Sample method was not randomized
- Small sample size

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澳大利亚老人防跌指引[[2008]

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谢谢!
Thank You!

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