Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 20-test

Page 1

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	20-test	
Inclusion Criteria		
Participant younger than 18 years at presentation	Yes No	
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	Yes No	
Presented at a CORTICES institution between January 2010 and June 2024		
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?		
Exclusion Criteria		
Is the participant skeletally mature at presentation	Yes ⊗ No	
Treated with anything other than rigid tibial intramedullary nail		
Only treatment was a nail removal at a CORTICES institution	○ Yes ○ No	
Eligibility		
If you answered NO for any of the inclusion questions or YES for any exclusion questions then the patient is no longer eligible for data collection		
Is the participant eligible for data collection	⊗ Yes ○ No	



Record~ID~*Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test

Page 2

Demographi	CS
------------	----

Site	 ○ Boston Children's ○ Levine Children's ○ Children's Atlanta ○ Children's Colorado ○ Scottish Rite for Children ○ Children's Los Angeles ○ Children's Philadelphia ○ Cincinnati Children's ○ CS Mott Children's ○ Gillette Children's ○ Le Bonheur Children's/Campbell Clinic ○ Lurie Children's ○ Nationwide Children's ○ Rady Children's ○ Seattle Children's ○ St. Louis Children's ○ Texas Children's ○ Vanderbilt Children's Hospital
Demographics	
Sex	○ Male○ Female
Patient date of birth	
Date of injury	
Age at time of injury	
Height	
	((cm))
Weight	
	((kg))
ВМІ	-10

₹EDCap°

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test~approximately~Choose~approximately~approximately~approximately~approximately~approximately~approximately~approximately~approximately~approximately~appro

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	
Date of surgery	
Age at time of surgery	
Time from injury	
	(days)
Surgical technique	○ Open reduction○ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	
	(mm)
Nail Length	(cm)
Nail Manufacturer	
Nail location	○ Above physis○ At physis○ Below physis
Fracture location	○ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral○ Oblique○ Comminuted



Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 20-test

Page	4
------	---

Fracture open	
Fibula fracture	○ Yes ○ No
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☐ None
Date of x-ray depicting radiographic healing	
Time for radiographic healing	
	(weeks)
Post-op immobilization	☐ Cast/splint ☐ Boot ☐ Other:
Date patient regained full weight bearing without assistance	
Time to full weight bearing without assistance	
	(weeks)
Complications?	○ Yes ○ No
Return to OR for HWR	○ Yes ○ No
Full return to normal activities and sports?	○ Yes ○ No
Last date of follow-up after injury	

₹EDCap°

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test~approximately~Choose~approximately~approximately~approximately~approximately~approximately~approximately~approximately~approximately~approximately~appro

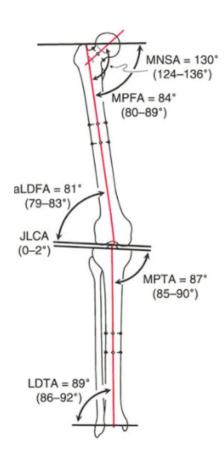
Page 5

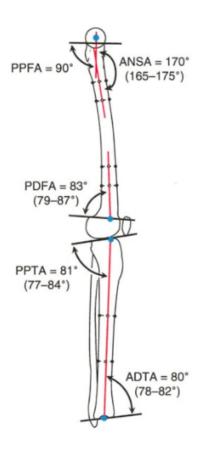
Radiographic Measurements

Radiographic Measurements

This section must be completed by or in conjuction with PI's		
Was there a Left hand xray obtained within 3 months of injury?	Yes No No	
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	○ Yes ○ No	
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app		
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ○ No	
Defined by closure of proximal tibia physis		
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	Yes No No	
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	○ Yes ○ No	
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	Yes No No	
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No	
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ○ No	

₹EDCap°







Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test2

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	20-test2
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	
Exclusion Criteria	
Is the participant skeletally mature at presentation	Yes ⊗ No
Treated with anything other than rigid tibial intramedullary nail	Yes ⊗ No
Only treatment was a nail removal at a CORTICES institution	
Eligibility	
If you answered NO for any of the inclusion questions or YES for any exclusion questions then the patient is no longer eligible for data collection	
Is the participant eligible for data collection	⊗ Yes ○ No



Record~ID~*Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test 20-test 20-te

Demographics

Demographics	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's Hospital
Demographics	
Sex	○ Male⊗ Female
Menarche	○ Pre-menarchal○ Post-menarchal⊗ Not Recorded
Patient date of birth	09-26-2003
Date of injury	12-05-2017
Age at time of injury	14
Height	163 ((cm))
Weight	57.13 ((kg))
ВМІ	21.5



Record~ID~*Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test 20-test 20-te

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATV⊗ Auto-ped○ Sports○ Fall from height○ Other:
Date of surgery	12-10-2017
Age at time of surgery	14
Time from injury	5 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	(mm)
Nail Length	
	(cm)
Nail Manufacturer	
Nail location	○ Above physis○ At physis○ Below physis
Fracture location	○ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No
Fibula fracture	⊗ Yes ○ No



Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 20-test2

Page 10

Location	⊗ Distal ○ Middle ○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☐ None
Date of x-ray depicting radiographic healing	
Time for radiographic healing	
	(weeks)
Post-op immobilization	☐ Cast/splint ☐ Boot ☐ Other:
Date patient regained full weight bearing without assistance	-
Time to full weight bearing without assistance	(weeks)
Complications?	⊗ Yes ○ No
Complications	☐ Infection ☐ VTE (Venous thrombosis) ☐ Nerve or vessel injury ☐ Physeal arrest ☐ Delayed/nonunion ☐ Unplanned return to OR (i.e. other than HWR) ☐ Ipsilateral extremity injury ☐ Other:
Return to OR for HWR	YesNo

REDCap°

Confidential

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 20-test2

Page 11

Full return to normal activities and sports?	
Last date of follow-up after injury	

₹EDCap°

11/20/2024 2:51pm projectredcap.org

Record~ID~*Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~20-test 20-test 20-te

Page 12

Radiographic Measurements

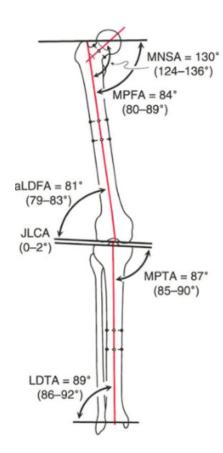
This section must be completed by or in conjuction	on with PI's	
Was there a Left hand xray obtained within 3 months of injury?	⊗ Yes ○ No	
Bone age (hand)		
If so then calculate hand bone age using Greulich/Pyle		-
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No	
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app		-
Did patient reach skeletal maturity by the last postoperative visit?	⊗ Yes ○ No	
Defined by closure of proximal tibia physis		
Date skeletal maturity was observed	07-02-2024	
How many months between injury and skeletal maturity?		-
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	⊗ Yes ○ No	
Date of First Post-OP AP X-ray		
Date of First Post-OP LAT X-ray		-
MPTA		
LDTA		-
РРТА		-
ADTA		-

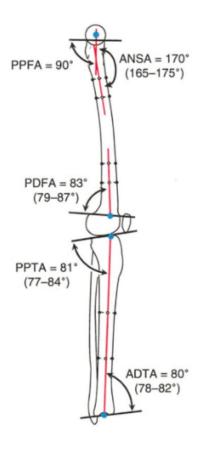
Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 20-test2

Page 13

AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	⊗ Yes ○ No
Date of AP X-ray	
Date of LAT X-ray	
МРТА	
LDTA	
РРТА	
ADTA	
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	○ Yes ⊗ No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ⊗ No

₹EDCap°







Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-001

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-001
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	
Exclusion Criteria	
Is the participant skeletally mature at presentation	Yes ⊗ No
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No
Only treatment was a nail removal at a CORTICES institution	
Eligibility	
If you answered NO for any of the inclusion quest the patient is no longer eligible for data collection	ions or YES for any exclusion questions then
Is the participant eligible for data collection	⊗ Yes ○ No

₹EDCap°

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-001

Page 16

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	○ Male⊗ Female
Menarche	○ Pre-menarchal○ Post-menarchal⊗ Not Recorded
Patient date of birth	08-22-2005
Date of injury	11-06-2020
Age at time of injury	15
Height	159 ((cm))
Weight	54 ((kg))
BMI	21.4



Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-001

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	d
Date of surgery	11-07-2020
Age at time of surgery	15
Time from injury	1 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	○ Suprapatellar⊗ Infrapatellar○ Extraarticular lateral○ Other:
Nail Diameter	(mm)
Nail Length	(cm)
Nail Manufacturer	
Nail location	⊗ Above physis○ At physis○ Below physis
Do interlocking screws cross physis?	YesNoUnable to determine
Fracture location	○ Distal 1/3 of shaft⊗ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse⊗ Spiral○ Oblique○ Comminuted



Fracture open	⊗ Yes ○ No
Fibula fracture	⊗ Yes ○ No
Location	○ Distal○ Middle⊗ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	01-05-2021
Time for radiographic healing	8.571428571428571 (weeks)
Post-op immobilization	☐ Cast/splint ☑ Boot ☐ Other:
For how long in boot?	12 (weeks)
Date patient regained full weight bearing without assistance	03-09-2021
Time to full weight bearing without assistance	17.428571428571427 (weeks)
Complications?	○ Yes ⊗ No
Return to OR for HWR	⊗ Yes ○ No

₹EDCap°

Confidential

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-001

Page 19

Date of Surgery	03-15-2021
Full return to normal activities and sports?	⊗ Yes ○ No
Were activities and sports at the same level as before the injury?	
Last date of follow-up after injury	04-06-2021

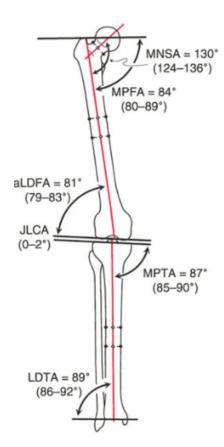


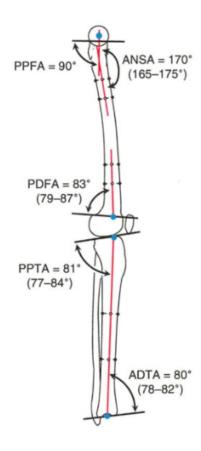
Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-001

Radiographic Measurements

Radiographic Measurements	
This section must be completed by as in conjusti	on with Dia
This section must be completed by or in conjucti	
Was there a Left hand xray obtained within 3 months of injury?	⊗ Yes ○ No
Bone age (hand)	13.81
If so then calculate hand bone age using Greulich/Pyle	
Was there an ipsilateral or contralateral knee	⊗ Yes
radiograph obtained within 3 months of injury?	○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	13.81
Did patient reach skeletal maturity by the last	○ Yes
postoperative visit?	⊗ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained	○ Yes
post-operatively [2 weeks to 4 months after surgery]	○ No
AP and lateral of tibia obtained after skeletal	○ Yes
maturity (closure of proximal tibial physis).	○ No
If patient was skeletally immature at last postop	○ Yes
visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	○ No
Was a standing AP of both lower extremities obtained 2	○ Yes
weeks - 4 months post op?	○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	Yes No
arte. errorear matarity.	<u> </u>









projectredcap.org

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-002

Page 22

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-002	
Inclusion Criteria		
Participant younger than 18 years at presentation	⊗ Yes ○ No	
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No	
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No	
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	YesNo	
Exclusion Criteria		
Is the participant skeletally mature at presentation	○ Yes ⊗ No	
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No	
Only treatment was a nail removal at a CORTICES institution		
Eligibility		
If you answered NO for any of the inclusion questions or YES for any exclusion questions then		
the patient is no longer eligible for data collection		
Is the participant eligible for data collection	⊗ Yes ○ No	

REDCap[®]

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-002

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ Seattle Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	○ Male⊗ Female
Menarche	○ Pre-menarchal○ Post-menarchal⊗ Not Recorded
Patient date of birth	08-20-2003
Date of injury	05-25-2019
Age at time of injury	15
Height	150 ((cm))
Weight	48 ((kg))
ВМІ	21.3



Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-002

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSports⊗ Fall from heightOther:
Date of surgery	05-26-2019
Age at time of surgery	15
Time from injury	1 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	(mm)
Nail Length	
	(cm)
Nail Manufacturer	
Nail location	○ Above physis○ At physis○ Below physis
Fracture location	○ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ○ No
Fibula fracture	○ Yes ○ No



OTA Classification		
[Attachment: "ota.jpg"]		
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C2 ↓ 42C3 	
Associated injuries	☐ Ligamentous knee ☑ Fracture ☐ Head injury ☐ Other: ☐ None	
Date of x-ray depicting radiographic healing	07-23-2019	
Time for radiographic healing	8.428571428571429 (weeks)	
Post-op immobilization		
For how long in cast/splint?	8 (weeks)	
Date patient regained full weight bearing without assistance	07-23-2019	
Time to full weight bearing without assistance	8.285714285714286 (weeks)	
Complications?	○ Yes ⊗ No	
Return to OR for HWR		
Full return to normal activities and sports?	⊗ Yes ○ No	
Were activities and sports at the same level as before the injury?	○ Yes ○ No	
Last date of follow-up after injury	10-01-2019	

₹EDCap°

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-002

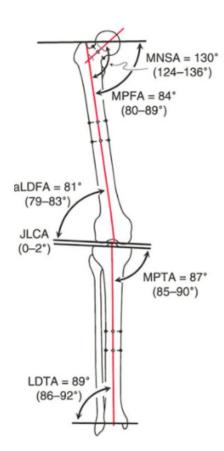
Page 26

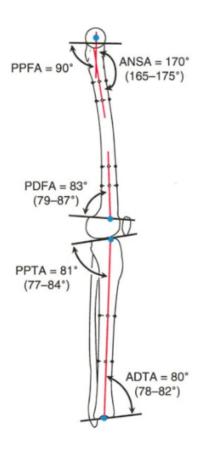
Radiographic Measurements

Radiographic Measurements

This section must be completed by or in conjuction	ı with PI's
Was there a Left hand xray obtained within 3 months of injury?	○ Yes ⊗ No
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	14.17
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ⊗ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes ○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	○ Yes ○ No
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	○ Yes ○ No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ○ No

₹EDCap°







Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-003

Page 28

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-003	
Inclusion Criteria		
Participant younger than 18 years at presentation	⊗ Yes ○ No	
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No	
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No	
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?		
Exclusion Criteria		
Is the participant skeletally mature at presentation		
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No	
Only treatment was a nail removal at a CORTICES institution		
Eligibility		
If you answered NO for any of the inclusion questions or YES for any exclusion questions then the patient is no longer eligible for data collection		
Is the participant eligible for data collection	⊗ Yes ○ No	



Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-003

Demographics

Site	O Boston Children's O Levine Children's O Children's Atlanta O Children's Colorado O Scottish Rite for Children O Children's Los Angeles O Children's Philadelphia O Cincinnati Children's O CS Mott Children's O Gillette Children's O Le Bonheur Children's/Campbell Clinic O Lurie Children's O Nationwide Children's O Rady Children's O Seattle Children's O Seattle Children's O St. Louis Children's O Texas Children's O Vanderbilt Children's O UCSF Benioff Children's Hospital
Demographics	
Sex	○ Male⊗ Female
Menarche	○ Pre-menarchal○ Post-menarchal⊗ Not Recorded
Patient date of birth	12-28-2000
Date of injury	05-08-2016
Age at time of injury	15
Height	156 ((cm))
Weight	62 ((kg))
ВМІ	25.5



Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-003

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from heightOther:
Date of surgery	05-08-2016
Age at time of surgery	15
Time from injury	0 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	(mm)
Nail Length	
	(cm)
Nail Manufacturer	
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	○ Distal 1/3 of shaft○ Middle 1/3 of shaft⊗ Proximal 1/3 of shaft
Fracture characteristics	⊗ Transverse○ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No
Fibula fracture	○ Yes ⊗ No



OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☐ None
Date of x-ray depicting radiographic healing	07-29-2016
Time for radiographic healing	11.714285714285714 (weeks)
Post-op immobilization	☐ Cast/splint☐ Boot☐ Other:
For how long in cast/splint?	9 (weeks)
Date patient regained full weight bearing without assistance	01-04-2017
Time to full weight bearing without assistance	34.42857142857143 (weeks)
Complications?	○ Yes ⊗ No
Return to OR for HWR	○ Yes ⊗ No
Full return to normal activities and sports?	⊗ Yes ○ No
Were activities and sports at the same level as before the injury?	○ Yes ○ No
Last date of follow-up after injury	01-04-2017

₹EDCap°

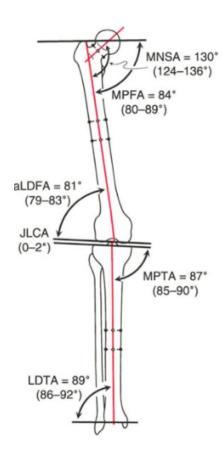
Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-003

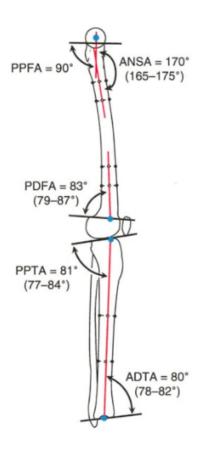
Page 32

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjuction	n with PI's
Was there a Left hand xray obtained within 3 months of injury?	○ Yes ⊗ No
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	14.42
Did patient reach skeletal maturity by the last postoperative visit?	⊗ Yes ○ No
Defined by closure of proximal tibia physis	
Date skeletal maturity was observed	01-04-2017
How many months between injury and skeletal maturity?	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes ○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	○ Yes ○ No
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	○ Yes ○ No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ○ No









Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-004

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-004
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	○ Yes ○ No
Exclusion Criteria	
Is the participant skeletally mature at presentation	○ Yes ⊗ No
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No
Only treatment was a nail removal at a CORTICES institution	○ Yes ⊗ No
Eligibility	
If you answered NO for any of the inclusion que	· ·
the patient is no longer eligible for data collection	on

₹EDCap°

Is the participant eligible for data collection

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-004

Page 35

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	07-18-2006
Date of injury	12-09-2021
Age at time of injury	15
Height	172.7 ((cm))
Weight	53.5 ((kg))
BMI	17.9



Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-004

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	gunshot
Date of surgery	12-10-2021
Age at time of surgery	15
Time from injury	1 (days)
Surgical technique	⊗ Open reduction○ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Other Nail Technique	perfect circle
Nail Diameter	10 (mm)
Nail Length	37 (cm)
Nail Manufacturer	Smith & Nephew
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral○ Oblique⊗ Comminuted
Fracture open	⊗ Yes ○ No



Page 37

Fibula fracture	⊗ Yes ○ No
Location	○ Distal⊗ Middle○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	
Time for radiographic healing	
	(weeks)
Post-op immobilization	☐ Cast/splint ☐ Boot ☐ Other:
Date patient regained full weight bearing without assistance	
Time to full weight bearing without assistance	
	(weeks)
Complications?	○ Yes ○ No
Return to OR for HWR	○ Yes ○ No
Full return to normal activities and sports?	○ Yes ○ No

₹EDCap°

Confidential

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-004

Page 38

Last date of follow-up after injury	



11/20/2024 2:51pm projectredcap.org

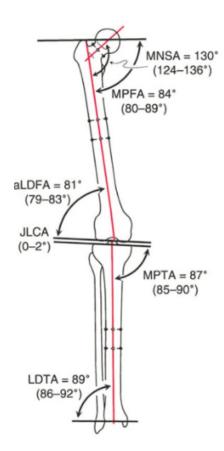
Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-004

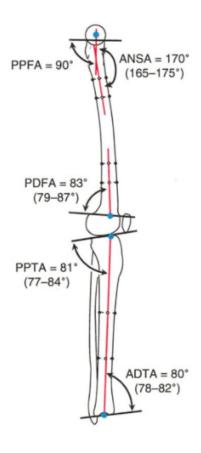
Page 39

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjuct	ion with PI's
Was there a Left hand xray obtained within 3 months of injury?	○ Yes ⊗ No
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ○ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	YesNo
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	









Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-005

Page 41

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-005
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	
Exclusion Criteria	
Is the participant skeletally mature at presentation	
Treated with anything other than rigid tibial intramedullary nail	
Only treatment was a nail removal at a CORTICES institution	
Eligibility	
If you answered NO for any of the inclusion question the patient is no longer eligible for data collection	ons or YES for any exclusion questions then
Is the participant eligible for data collection	⊗ Yes ○ No

₹EDCap°

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-005

Demographics

Demographics	 ○ Boston Children's ○ Levine Children's ○ Children's Atlanta ○ Children's Colorado ○ Scottish Rite for Children ○ Children's Los Angeles ○ Children's Philadelphia ○ Cincinnati Children's ○ CS Mott Children's ○ Gillette Children's ○ Le Bonheur Children's/Campbell Clinic ○ Lurie Children's ○ Nationwide Children's ○ Rady Children's ○ Seattle Children's ○ Seattle Children's ○ Texas Children's ○ Vanderbilt Children's Hospital
Demographics	
Sex	○ Male⊗ Female
Menarche	○ Pre-menarchal○ Post-menarchal⊗ Not Recorded
Patient date of birth	10-21-2007
Date of injury	02-07-2022
Age at time of injury	14
Height	165.1 ((cm))
Weight	75.7 ((kg))
BMI	27.8



Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-005

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	sledding
Date of surgery	02-14-2022
Age at time of surgery	14
Time from injury	7 (days)
Surgical technique	⊗ Open reduction○ Closed reduction
Nail technique	○ Suprapatellar○ Infrapatellar○ Extraarticular lateral○ Other:
Nail Diameter	10 (mm)
Nail Length	33 (cm)
Nail Manufacturer	Smith & Nephew/Rich Co
Nail location	⊗ Above physis○ At physis○ Below physis
Do interlocking screws cross physis?	Yes⊗ NoUnable to determine
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse⊗ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No



Page 44

Fibula fracture	⊗ Yes ○ No
Location	⊗ Distal○ Middle○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ⊗ 42A1 ◯ 42A2 ◯ 42A3 ◯ 42B ◯ 42B2 ◯ 42B3 ◯ 42C ◯ 42C2 ◯ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☒ None
Date of x-ray depicting radiographic healing	03-15-2022
Time for radiographic healing	5.142857142857143 (weeks)
Post-op immobilization	☑ Cast/splint☐ Boot☐ Other:
For how long in cast/splint?	4 (weeks)
Date patient regained full weight bearing without assistance	06-21-2022
Time to full weight bearing without assistance	18.142857142857142 (weeks)
Complications?	○ Yes ⊗ No
Return to OR for HWR	○ Yes ⊗ No
Full return to normal activities and sports?	⊗ Yes ○ No

₹EDCap°

Confidential

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-005

Page 45

Were activities and sports at the same level as before the injury?	⊗ Yes ○ No	
Last date of follow-up after injury	02-07-2023	

REDCap⁰

11/20/2024 2:51pm projectredcap.org

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-005

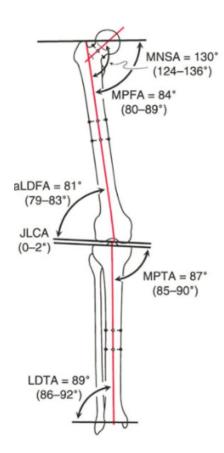
Page 46

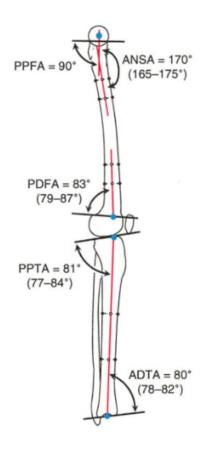
Radiographic Measurements

Radiographic Measurements

This section must be completed by or in conjuction	n with PI's
Was there a Left hand xray obtained within 3 months of injury?	
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ○ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	Yes No No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	○ Yes ○ No
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	Yes No No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ○ No

₹EDCap°







Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-006

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-006
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	○ Yes ○ No
Exclusion Criteria	
Is the participant skeletally mature at presentation	○ Yes ⊗ No
Treated with anything other than rigid tibial intramedullary nail	
Only treatment was a nail removal at a CORTICES institution	○ Yes ⊗ No
Eligibility	
If you answered NO for any of the inclusion quest the patient is no longer eligible for data collection	· · · · · · · · · · · · · · · · · · ·
Is the participant eligible for data collection	⊗ Yes ○ No



Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-006

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	09-30-2006
Date of injury	02-27-2022
Age at time of injury	15
Height	177.5 ((cm))
Weight	56.5 ((kg))
BMI	17.9



Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-006

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from heightOther:
Date of surgery	03-02-2022
Age at time of surgery	15
Time from injury	3 (days)
Surgical technique	⊗ Open reduction○ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	8.5 (mm)
Nail Length	37 (cm)
Nail Manufacturer	Smith & Nephew/Rich Co
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	⊗ Transverse○ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No
Fibula fracture	⊗ Yes ○ No



Location	⊗ Distal○ Middle○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ጲ 42A3 ℚ 42B ℚ 42B2 ℚ 42B3 ℚ 42C ℚ 42C2 ℚ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	04-12-2022
Time for radiographic healing	6.285714285714286 (weeks)
Post-op immobilization	☐ Cast/splint ☐ Boot ☐ Other:
For how long in cast/splint?	2 (weeks)
Date patient regained full weight bearing without assistance	05-17-2022
Time to full weight bearing without assistance	10.857142857142858 (weeks)
Complications?	○ Yes ⊗ No
Return to OR for HWR	○ Yes ⊗ No
Full return to normal activities and sports?	⊗ Yes ○ No
Were activities and sports at the same level as before the injury?	○ Yes ⊗ No

₹EDCap°

Confidential

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-006

Page 52

Last date of follow-up after injury

08-23-2022



projectredcap.org

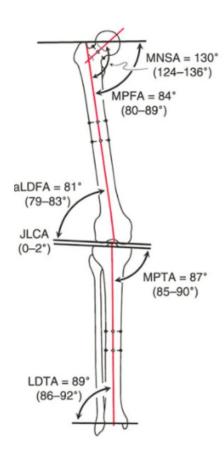
Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-006

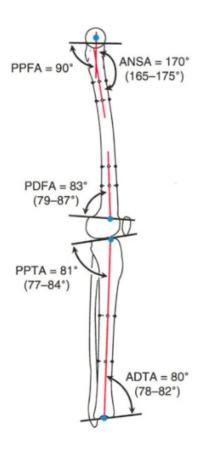
Page 53

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjucti	ion with PI's
Was there a Left hand xray obtained within 3 months of injury?	
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	YesNo
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes ○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	YesNo
Was a standing AP of both lower extremities obtained after skeletal maturity?	○ Yes ○ No

₹EDCap°







Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-007

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-007	
Inclusion Criteria		
Participant younger than 18 years at presentation	⊗ Yes ○ No	
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No	
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No	
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?		
Exclusion Criteria		
Is the participant skeletally mature at presentation	Yes ⊗ No	
Treated with anything other than rigid tibial intramedullary nail	Yes ⊗ No	
Only treatment was a nail removal at a CORTICES institution	Yes ⊗ No	
Eligibility If you answered NO for any of the inclusion questions or YES for any exclusion questions then the patient is no longer eligible for data collection		
Is the participant eligible for data collection	⊗ Yes ○ No	



Weight

BMI

RIMN: CORTICES

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-007

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	04-27-2007
Date of injury	03-17-2022
Age at time of injury	14
Height	170.2

((cm))

61 ((kg))

21.1



11/20/2024 2:51pm projectredcap.org

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-007~creation.

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	bicycle crash
Date of surgery	03-21-2022
Age at time of surgery	14
Time from injury	4 (days)
Surgical technique	⊗ Open reduction○ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Other Nail Technique	proximal lateral
Nail Diameter	10 (mm)
Nail Length	35 (cm)
Nail Manufacturer	Smith & Nephew Tri Gen
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse⊗ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No



Fibula fracture	⊗ Yes ○ No
Location	⊗ Distal○ Middle○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ⊗ 42A1 ○ 42A2 ○ 42B3 ○ 42B2 ○ 42B3 ○ 42C2 ○ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	04-19-2022
Time for radiographic healing	4.714285714285714 (weeks)
Post-op immobilization	☑ Cast/splint☐ Boot☐ Other:
For how long in cast/splint?	2 (weeks)
Date patient regained full weight bearing without assistance	06-21-2022
Time to full weight bearing without assistance	13.142857142857142 (weeks)
Complications?	⊗ Yes ○ No

₹EDCap°

Page 59

Complications	☐ Infection ☐ VTE (Venous thrombosis) ☐ Nerve or vessel injury ☐ Physeal arrest ☐ Delayed/nonunion ☑ Unplanned return to OR (i.e. other than HWR) ☐ Ipsilateral extremity injury ☐ Other:
Return to OR for HWR	
Full return to normal activities and sports?	○ Yes ⊗ No
Last date of follow-up after injury	03-28-2023

₹EDCap°

11/20/2024 2:51pm projectredcap.org

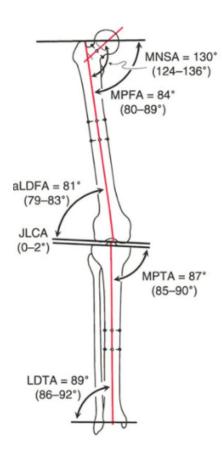
Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-007

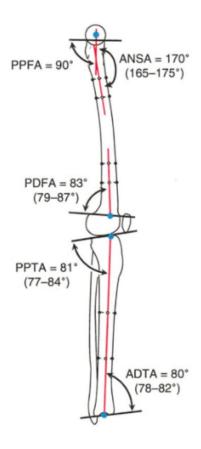
Page 60

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjuct	ion with PI's
Was there a Left hand xray obtained within 3 months of injury?	○ Yes ⊗ No
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ○ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	YesNo
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	









Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-008

Page 62

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-008	
Inclusion Criteria		
Participant younger than 18 years at presentation	⊗ Yes ○ No	
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No	
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No	
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	YesNo	
Exclusion Criteria		
Is the participant skeletally mature at presentation	Yes ⊗ No	
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No	
Only treatment was a nail removal at a CORTICES institution	○ Yes ⊗ No	
Eligibility		
If you answered NO for any of the inclusion questions or YES for any exclusion questions then the patient is no longer eligible for data collection		
Is the participant eligible for data collection	⊗ Yes ○ No	

REDCap°

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-008

Page 63

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ Seattle Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	01-06-2008
Date of injury	05-20-2022
Age at time of injury	14
Height	162.6 ((cm))
Weight	106.6 ((kg))

40.3



11/20/2024 2:51pm

BMI

Record~ID*Choose~an~existing~Study~ID*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-008

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from heightOther:
Date of surgery	05-20-2022
Age at time of surgery	14
Time from injury	0 (days)
Surgical technique	⊗ Open reduction○ Closed reduction
Nail technique	Suprapatellar⊗ Infrapatellar○ Extraarticular lateralOther:
Nail Diameter	8.5 (mm)
Nail Length	32 (cm)
Nail Manufacturer	Smith & Nephew Tri Gen
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral⊗ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No
Fibula fracture	⊗ Yes ○ No



Page 65

Location	⊗ Distal○ Middle○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ጲ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C ዟ 42C2 ዟ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	
Time for radiographic healing	
	(weeks)
Post-op immobilization	☐ Cast/splint ☑ Boot ☐ Other:
For how long in boot?	2 (weeks)
Date patient regained full weight bearing without assistance	
Time to full weight bearing without assistance	(weeks)
Complications?	○ Yes ○ No
Return to OR for HWR	○ Yes ○ No
Full return to normal activities and sports?	○ Yes ○ No
Last date of follow-up after injury	05-22-2022

₹EDCap°

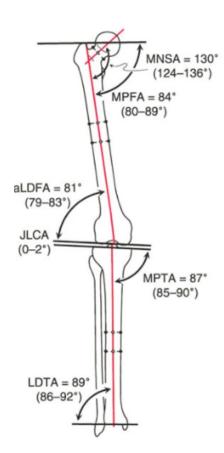
Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-008

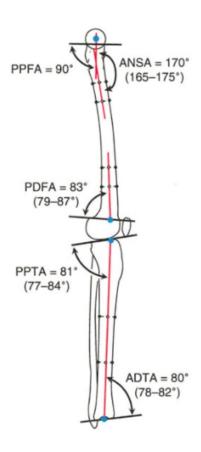
Page 66

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjucti	on with PI's
Was there a Left hand xray obtained within 3 months of injury?	Yes No
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	○ Yes ○ No
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	○ Yes ○ No
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	YesNo
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	○ Yes ○ No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	









Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-009

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-009
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	○ Yes ○ No
Exclusion Criteria	
Is the participant skeletally mature at presentation	Yes No
Treated with anything other than rigid tibial intramedullary nail	○ Yes ⊗ No
Only treatment was a nail removal at a CORTICES institution	○ Yes ⊗ No
Eligibility	
If you answered NO for any of the inclusion que	stions or YES for any exclusion questions then
the patient is no longer eligible for data collection	

₹EDCap°

11/20/2024 2:51pm

Is the participant eligible for data collection

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-009

Demographics

Site	 □ Boston Children's □ Levine Children's □ Children's Atlanta □ Children's Colorado □ Scottish Rite for Children □ Children's Los Angeles □ Children's Philadelphia □ Cincinnati Children's □ CS Mott Children's □ Gillette Children's □ Le Bonheur Children's/Campbell Clinic □ Lurie Children's □ Nationwide Children's □ Rady Children's □ Seattle Children's □ St. Louis Children's □ Texas Children's □ Vanderbilt Children's □ UCSF Benioff Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	01-15-2007
Date of injury	09-28-2022
Age at time of injury	15
Height	
	((cm))
Weight	
	((kg))
ВМІ	-10



Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSports⊗ Fall from heightOther:
Date of surgery	09-28-2022
Age at time of surgery	15
Time from injury	0 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	○ Suprapatellar○ Infrapatellar⊗ Extraarticular lateral○ Other:
Nail Diameter	10 (mm)
Nail Length	36 (cm)
Nail Manufacturer	Smith & Nephew Tri Gen
Nail location	○ Above physis⊗ At physis○ Below physis
Fracture location	⊗ Distal 1/3 of shaft○ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse○ Spiral○ Oblique⊗ Comminuted
Fracture open	Yes ⊗ No
Fibula fracture	⊗ Yes ○ No



Page 71

Location	⊗ Distal ○ Middle ○ Proximal
OTA Classification	
[Attachment: "ota.jpg"]	
Use the link provided above to identify the OTA Classification	 ↓ 42A ↓ 42A1 ↓ 42A2 ↓ 42B3 ↓ 42B2 ↓ 42B3 ↓ 42C ↓ 42C2 ↓ 42C3
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None
Date of x-ray depicting radiographic healing	11-14-2022
Time for radiographic healing	6.714285714285714 (weeks)
Post-op immobilization	☐ Cast/splint ☐ Boot ☐ Other:
For how long in cast/splint?	2 (weeks)
Date patient regained full weight bearing without assistance	01-23-2023
Time to full weight bearing without assistance	16.714285714285715 (weeks)
Complications?	○ Yes ⊗ No
Return to OR for HWR	⊗ Yes ○ No
Date of Surgery	08-29-2023
Full return to normal activities and sports?	○ Yes ⊗ No
Last date of follow-up after injury	12-04-2023

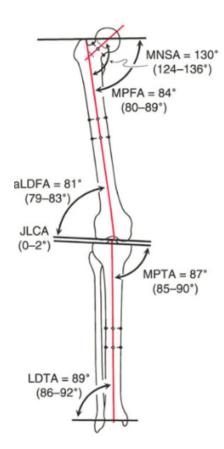
REDCap°

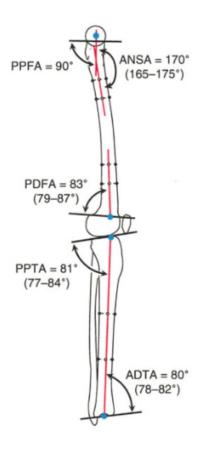
Page 72

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjucti	on with PI's
Was there a Left hand xray obtained within 3 months of injury?	
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	YesNo
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	Yes No No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	









Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-010 $\,$

Page 74

Eligibility

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation.	35-010
Inclusion Criteria	
Participant younger than 18 years at presentation	⊗ Yes ○ No
Diagnosed with tibial shaft fracture, open physes, and treated with rigid tibial intramedullary nail	⊗ Yes ○ No
Presented at a CORTICES institution between January 2010 and June 2024	⊗ Yes ○ No
On the Skeletal Maturity App the participant was identified as a TibQ-1 or TibQ-0?	
Exclusion Criteria	
Is the participant skeletally mature at presentation	Yes ⊗ No
Treated with anything other than rigid tibial intramedullary nail	Yes ⊗ No
Only treatment was a nail removal at a CORTICES institution	
Eligibility	
If you answered NO for any of the inclusion quest	ions or YES for any exclusion questions then
the patient is no longer eligible for data collection	
Is the participant eligible for data collection	⊗ Yes ○ No

REDCap°

Record ID * Choose an existing Study ID *Please refer to the Data Entry Guide for instructions about Study ID creation. 35-010

Page 75

Demographics

Site	 Boston Children's Levine Children's Children's Atlanta Children's Colorado Scottish Rite for Children Children's Los Angeles Children's Philadelphia Cincinnati Children's CS Mott Children's Gillette Children's Le Bonheur Children's/Campbell Clinic Lurie Children's Nationwide Children's Rady Children's Seattle Children's Seattle Children's Texas Children's Vanderbilt Children's UCSF Benioff Children's Hospital
Demographics	
Sex	⊗ Male ○ Female
Patient date of birth	01-27-2008
Date of injury	02-02-2023
Age at time of injury	15
Height	
	((cm))
Weight	
	((kg))

₹EDCap°

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-010~creation.

Injury Characteristics

Injury Characteristics	
Mechanism of injury (MOI)	MVA/MCA/ATVAuto-pedSportsFall from height⊗ Other:
Other:	wrestling
Date of surgery	02-09-2023
Age at time of surgery	15
Time from injury	7 (days)
Surgical technique	○ Open reduction⊗ Closed reduction
Nail technique	SuprapatellarInfrapatellarExtraarticular lateralOther:
Nail Diameter	11.5 (mm)
Nail Length	32 (cm)
Nail Manufacturer	Smith & Nephew TriGen
Nail location	○ Above physis○ At physis○ Below physis
Fracture location	○ Distal 1/3 of shaft⊗ Middle 1/3 of shaft○ Proximal 1/3 of shaft
Fracture characteristics	○ Transverse⊗ Spiral○ Oblique○ Comminuted
Fracture open	○ Yes ⊗ No
Fibula fracture	○ Yes ⊗ No



OTA Classification		
[Attachment: "ota.jpg"]		
Use the link provided above to identify the OTA Classification	 ↓ 42A ⊗ 42A1 ◯ 42A2 ◯ 42A3 ◯ 42B ◯ 42B2 ◯ 42B2 ◯ 42B3 ◯ 42C ◯ 42C2 ◯ 42C3 	
Associated injuries	☐ Ligamentous knee ☐ Fracture ☐ Head injury ☐ Other: ☑ None	
Date of x-ray depicting radiographic healing	03-17-2023	
Time for radiographic healing	6.142857142857143 (weeks)	
Post-op immobilization	☐ Cast/splint☑ Boot☐ Other:	
For how long in boot?	4 (weeks)	
Date patient regained full weight bearing without assistance	04-18-2023	
Time to full weight bearing without assistance	9.714285714285714 (weeks)	
Complications?	○ Yes ⊗ No	
Return to OR for HWR	○ Yes ⊗ No	
Full return to normal activities and sports?	○ Yes ○ No	
Last date of follow-up after injury	04-18-2023	

₹EDCap°

Record~ID~*~Choose~an~existing~Study~ID~*Please~refer~to~the~Data~Entry~Guide~for~instructions~about~Study~ID~creation.~35-010~creation.

Page 78

Radiographic Measurements

Radiographic Measurements	
This section must be completed by or in conjucti	on with PI's
Was there a Left hand xray obtained within 3 months of injury?	
Was there an ipsilateral or contralateral knee radiograph obtained within 3 months of injury?	⊗ Yes ○ No
Skeletal Bone age (knee) calculated via the Modified Fels/Liu bone age using Skeletal Maturity Rainbow app	
Did patient reach skeletal maturity by the last postoperative visit?	YesNo
Defined by closure of proximal tibia physis	
First AP and lateral of tibia obtained post-operatively [2 weeks to 4 months after surgery]	
AP and lateral of tibia obtained after skeletal maturity (closure of proximal tibial physis).	
If patient was skeletally immature at last postop visit [2 weeks to 4 months post op]: latest AP and lateral of tibia	Yes No No
Was a standing AP of both lower extremities obtained 2 weeks - 4 months post op?	○ Yes ○ No
Was a standing AP of both lower extremities obtained after skeletal maturity?	



